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*In this Issue . . .* Accident risk by size of plant . . . New housing, 1942 . . . Women's work in war-time . . . Wages—aircraft propellers.

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

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# MONTHLY **LABOR REVIEW**

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

\*\*\*\*\* + HUGH S. HANNA, EDITOR + \*\*\*\*\*

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## *This Issue in Brief*

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### *Canadian regulations for employment of civilians.*

Among the more important changes in the Canadian Selective Service Civilian Regulations made in January 1943 is the provision that civilians of draft age may be used to alleviate labor shortages by compulsory transfer from one job to another. The regulations also provide that all persons aged 16 to 65 years, with the exception of full-time students, housewives, and the clergy, must register for work if they are not gainfully employed for 7 consecutive days. Employers, in general, are required to give employees 7 days' notice if their service is to be terminated and employees are required to give the same notice unless they are undergoing alternate service under the National Selective Service Mobilization Regulations or are entering service in the armed services. Employers are obliged to notify the employment service of any surplus workers in their employ in order to prevent hoarding labor, and agricultural workers are limited to a total of 60 days of work a year in another industry unless they have a permit. Page 673.

### *Accident hazards, by size of plant.*

It is generally true that work in a small plant presents a greater risk of accident than that in larger plants. Nevertheless, the small plants are capable of accident records as good as or better than those of larger size. An analysis by the Bureau of Labor Statistics of accident records of 6,162 establishments with about 1,315,000 workers indicates that the best performance among these small plants was better than the best of the largest and medium-size establishments. Although sawmilling is a hazardous industry with an injury-frequency rate of 54.5 per million man-hours, 234 of the 672 small sawmills went through the year without a single disabling injury. An analysis of the accident-frequency records of the small, medium, and large plants in the various industries is given in the article on page 647.

### *Wages in the aircraft-propeller industry.*

Straight-time hourly earnings of first-shift workers in plants manufacturing metal propellers for aircraft averaged \$1.075 in October 1942. The average for male workers was \$1.10 an hour, as compared with 82.2 cents for the comparatively small number of female employees. Average occupational earnings for males, above the learner grade, ranged from 77.2 cents an hour for laborers to \$1.364 for inspectors of tools, dies, and jigs, and for females from 71.1 cents for janitors to 93 cents for subassemblers. Page 748.

### *New housing in nonfarm areas, 1941 and 1942.*

Residential construction was drastically curtailed during 1942 by wartime restrictions. After almost a decade of constantly increasing volume, the number of new nonfarm dwelling units declined from 715,000 in 1941 to 493,300 in 1942, a decrease of almost a third. This was the smallest total since 1938. The number of units in publicly financed housing projects started during 1942 (193,791) was more than double the number in 1941, while privately financed new units (299,509) were less than half the number in 1941. Page 652.

### *Women's work in wartime.*

Women are being called increasingly not only into direct war jobs but also into civilian types of work to fill vacancies left by men going into war work or military service. It is estimated that by the end of 1942 there were some 4,000,000 women in direct war jobs out of a total of about 15,000,000 women in all types of gainful employment. A review of the various war employments of women is given on page 661.



***Health of industrial workers, 1942.***

The mortality rate among the many millions of industrial policyholders in the Metropolitan Life Insurance Co. was slightly less in 1942 than the record low rate registered in 1941. Death rates were low in each month during the first three-quarters of the year but increased slightly in the last 3 months. As the war continues, however, a rise in the mortality must be considered inevitable. Continued favorable mortality rates were recorded at the early childhood ages and at ages over 55, but higher rates were especially marked in the age groups 15 to 19 and 20 to 24. The latter age group is the one in which most of the deaths of military personnel occur, and 41 percent of the deaths in this group occurred among persons in the armed services resulting from accidents, disease, and enemy action. Many industrial deaths may also be charged to the war effort as a result of the use of inexperienced workers in the rapidly expanding war industries. Improvement occurred in the death rates from influenza and pneumonia, which caused more deaths among the armed forces than did battle casualties in the last war. The rate for deaths from tuberculosis which has risen in all the belligerent countries was slightly lower than in 1941. Page 734.

***Earnings in California aircraft-parts plants.***

Hourly earnings of first-shift workers in California plants manufacturing aircraft parts averaged 91.4 cents in November 1942, exclusive of premium overtime pay. Male workers, who constituted 80.7 percent of the total first-shift employment, earned an average of 96.2 cents an hour, as compared with 71.1 cents for female workers. Nearly one-third of the workers were in occupations in which the average hourly earnings were \$1.00 or more. Page 758.

***Absenteeism in Canada.***

A study of absenteeism in 35 Canadian war plants in 1942 showed a daily absenteeism rate of 8.1 percent in September, 6.4 in October, and 6.9 percent in November. The higher September rate was believed to be due in part to the fact that September is a popular vacation month. The rate varied greatly between different plants, ranging from 2.8 percent to 18.7 percent in two plants, each of which employed more than 5,000 workers. New firms tended to have more absenteeism than long-established companies and higher absenteeism rates occurred in plants employing a large number of women. The major causes of absence were found to be illness and accident, industrial fatigue, personal reasons, and vacations and leave of absence, although the relative importance of these causes could not be established from the data. General principles recommended for the control of absenteeism were improvement of labor relations between employers and employees, establishment of joint labor-management production committees, adequate systems of recording absences and their causes, establishment of safety and health programs, and of programs designed to impress upon employees their individual responsibility in the war effort. Page 683.

***Builders of 1-family houses, 1940 and 1941.***

By far the largest proportion of the builders of 1-family houses erect only one house per year; in both 1940 and 1941 three-fourths of the builders of privately financed houses in 11 defense areas were in this class. This whole group constructed only 28 percent of all the single-family dwellings erected in 1940 and only 20 percent in 1941. On the other hand, large-scale builders (10 or more houses each) accounted for 44 percent of the houses in 1940 and 56 percent in 1941. Page 801.

***Earnings in manufacture of refrigerating equipment.***

By the summer of 1942, the production of domestic refrigerators had practically ceased, and the shift to war production caused employment to decrease in 1942 to about the figure for April 1940. Average earnings increased 23.5 cents—from 78.2 cents to \$1.017 per hour—from April 1940 to the summer of 1942. Some inflation of average hourly earnings resulted from extra payments for overtime, owing to the lengthening of the average workweek by about 5 hours; the actual increase in hourly rates is estimated at about 18 cents—from 75.1 cents to 93.5 cents. Page 768.



# MONTHLY LABOR REVIEW

FOR APRIL 1943

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## ACCIDENT HAZARD, BY SIZE OF PLANT

By MAX D. KOSSORIS, *Bureau of Labor Statistics*

### *Summary*

SAFETY engineers generally believe that small-size plants are more hazardous to workers than the medium- or large-size plants. This opinion is correct in a general way. The smaller plants, however, are capable of especially good safety records. In a majority of the industries recently studied by the Bureau of Labor Statistics, the best performance of the smaller plants was better than the best performance of the medium and large plants. This finding suggests that great progress is possible in reducing accidents among small plants as a whole.

In 10 of the 16 manufacturing industries surveyed, the small plants as a group had an average injury-frequency rate higher than the average for either the medium- or large-size plants. On the other hand, the "good performance" group of small plants had lower average frequency rates in 13 of the 16 industries than did the "good performance" plants in the medium- and large-size groups.

### *Accident Frequency, by Size of Plant*

To discover the relative accident rates, by size of plants, a special analysis was made of the injury frequencies<sup>1</sup> during 1941 as reported to the Bureau of Labor Statistics by 16 manufacturing industries. The special analysis covered 6,162 establishments employing about 1,315,000 workers and reporting 72,000 disabling injuries during the year. The definition of "small," "medium," and "large" plants was varied to meet the circumstances of each particular industry. Size limits were based on inspection of the actual distributions by size of the reporting establishments. The small- and medium-size plants in a given industry were usually found to cluster about certain points. These clusters were used to establish the limits of size.

In 10 of the 16 industries, the group of small plants had higher frequency rates than either the medium- or large-size plants. These 10 industries, in alphabetic order and without any regard to the sizes of frequency rates, were (1) concrete, gypsum and plaster products, (2) fabricated structural steel, (3) forgings, (4) foundries, (5) logging, (6) metalworking machinery, (7) motor vehicles, (8) nonferrous-metal products, (9) paper, and (10) shipbuilding. In 2 industries (cut

<sup>1</sup> The injury-frequency rate is the average number of disabling injuries per million employee-hours worked.

stone and stone products and planing mills) large plants had the highest frequency rates, and in four industries (brick, tile and terra cotta, canning and preserving, fertilizers, and sawmills) the medium-size plants had the worst work-injury records.

TABLE 1.—*Injury-Frequency Rates, by Size of Establishment, for 16 Manufacturing Industries, 1941*

Industry and size of establishment	Size limits (number of employees)	Number of establishments	Injury-frequency rate	Industry and size of establishment	Size limits (number of employees)	Number of establishments	Injury-frequency rate
Brick, tile and terra cotta.		522	38.2	Logging.		259	96.3
Small plants	100 or less	402	41.7	Small plants	150 or less	219	105.8
Medium plants	101 to 300	100	47.1	Medium plants	151 to 400	29	88.7
Large plants	301 or more	20	24.9	Large plants	401 or more	11	92.5
Canning and preserving.		456	30.0	Metalworking machinery.		355	30.3
Small plants	250 or less	398	30.7	Small plants	500 or less	312	23.6
Medium plants	251 to 1,000	54	32.3	Medium plants	501 to 1,500	31	20.4
Large plants	1,001 or more	4	12.1	Large plants	1,501 or more	12	17.4
Concrete, gypsum, and plaster products.		271	46.6	Motor vehicles		180	8.1
Small plants	100 or less	240	54.6	Small plants	4,000 or less	156	10.5
Medium plants	101 to 300	25	48.6	Medium plants	4,001 to 10,000	19	6.8
Large plants	301 or more	6	26.1	Large plants	10,001 or more	5	7.2
Cut stone and stone products.		143	33.4	Nonferrous metal products.		252	20.4
Small plants	30 or less	105	30.9	Small plants	500 or less	231	25.6
Medium plants	31 to 100	29	24.0	Medium plants	501 to 1,500	17	21.5
Large plants	101 or more	9	44.0	Large plants	1,501 or more	4	12.4
Fabricated structural steel.		311	35.7	Paper		338	26.6
Small plants	300 or less	286	49.8	Small plants	500 or less	293	33.7
Medium plants	301 to 1,000	20	35.4	Medium plants	501 to 1,000	32	22.1
Large plants	1,001 or more	5	9.1	Large plants	1,001 or more	13	14.6
Fertilizers		360	29.3	Planing mills		988	39.2
Small plants	100 or less	325	31.2	Small plants	100 or less	839	32.5
Medium plants	101 to 300	27	32.6	Medium plants	101 to 300	118	39.8
Large plants	301 or more	8	20.6	Large plants	301 or more	31	49.7
Forgings		101	44.5	Sawmills		833	54.5
Small plants	500 or less	87	58.4	Small plants	100 or less	672	51.4
Medium plants	501 to 1,000	11	36.6	Medium plants	101 to 500	143	56.3
Large plants	1,001 or more	3	28.1	Large plants	501 or more	18	55.5
Foundries		631	46.9	Shipbuilding		162	26.4
Small plants	350 or less	529	58.6	Small plants	5,000 or less	151	31.9
Medium plants	351 to 1,000	80	39.0	Medium plants	5,001 to 10,000	7	29.7
Large plants	1,001 or more	22	40.6	Large plants	10,001 or more	4	17.4

As will be noted from an examination of table 1, the frequency rates of the size groups vary considerably between industries. In a few industries, such as sawmills and logging, there are no marked differences between the frequency rates of the various size groups. This suggests that, on an average, all of the size groups are equally hazardous and that the differences found in the analysis may be due to chance variations. In most industries, however, the differences between the size groups are very marked. For instance, the large iron and steel establishments had a frequency rate of 9.1. The medium-size establishments had a rate of 35.4, and the small establishments, of 49.8. It is also significant that in most industries the differences in frequency rates between the medium and small plants are much less than the differences between either of them and the large plants. In other words, the medium-size plant, on the average, has no great superiority over the small plant as a better accident risk. Large plants, as a group, were found to be safer than either the small- or medium-size plants.

### *"Good Performance" in Relation to Size of Plant*

Granted that small plants, as a whole, are the most hazardous, the question remains whether the relatively good safety performances among small plants are better or worse than among larger plants. For this purpose a standard of "good performance" was established for each size group in each industry. The establishments in each size group were first arranged by their injury-frequency rates, from low to high. The "good performance group" consisted of plants in each industry with the lowest frequency rates. "Good performance" for each size class was defined as the average frequency rate of those plants which had the lowest rates and which employed one-fifth of all the workers represented by the size group within a given industry. Thus, in the forging industry, 31 of the 87 small plants with the lowest frequency rates, accounting for about 20 percent of the total employment in small plants, constituted the "good performance group."

Wider variation of injury-frequency rates is to be expected among small plants than among large plants, for two reasons: (a) The greater number of small plants provides scope for a wider variety of accident experience, and (b) the relatively small employment base in the small plant allows a sharp difference in the frequency rate as a result of a comparatively small number of disabling injuries. Hence the best safety performance among the small plants is likely to be very much better than the average performance of small plants as a whole.

The actual safety performance of the best of the small plants proved to be superior to that of the best of the large plants. In 13 of the 16 industries studied, the "good performance" among the small plants was better than the "good performance" by the large- or medium-size plants. Even though small plants, as a whole, had higher frequency rates than large plants the small plants with the lowest rates (employing one-fifth of all workers in small plants) had much lower frequency rates than those in the corresponding class of the two other size groups. "Good performance" was best in the small plants.

A comparison of the average frequency rate in each size group with that of the good-performance section in the same group shows that good performance was in each instance vastly better than average performance. In the sawmill industry, for instance, the frequency rate for the group of small good-performance mills was 0.0 and that for the entire group of small mills was 51.4. In other words, 234 out of 672 small sawmills were able to go through the entire year without a single disabling work injury. On the other hand, the frequency rate for good-performance mills in the medium-size group was 10.9, and in large mills, 18.1. The good-performance rate for the entire industry was 9.2.

In general, table 2 indicates that although small plants on an average are more hazardous than either medium or large plants, they are capable of safety records as good as or better than those of either of the larger size establishments.

This conclusion warrants the repeated consideration by safety men of the accident problem in the small plant. If a substantial percentage of small plants can achieve good safety records, what can be done to



TABLE 2.—*Injury-Frequency Rates of Good-Performance<sup>1</sup> Plants, by Size Groups, in 16 Manufacturing Industries, 1941*

Industry and size of establishment <sup>2</sup>	Number of establishments		Injury-frequency rate	
	In entire group	In good-performance group <sup>1</sup>	For entire group	For good-performance group <sup>1</sup>
Brick, tile, and terra cotta.....	522	133	38.2	5.0
Small plants.....	402	108	41.7	0
Medium plants.....	100	21	47.1	10.5
Large plants.....	20	4	24.9	4.5
Canning and preserving.....	456	157	30.0	2.2
Small plants.....	398	143	30.7	0
Medium plants.....	54	13	32.3	3.3
Large plants.....	4	1	12.1	5.5
Concrete, gypsum, and plaster products.....	271	109	46.6	3.0
Small plants.....	240	102	54.6	0
Medium plants.....	25	6	48.6	2.3
Large plants.....	6	1	26.1	9.5
Cut stone and stone products.....	143	28	33.4	3.3
Small plants.....	105	21	30.9	0
Medium plants.....	29	6	24.0	0
Large plants.....	9	1	44.0	8.9
Fabricated structural steel.....	311	96	35.7	4.0
Small plants.....	286	91	49.8	5.2
Medium plants.....	20	4	35.4	2.4
Large plants.....	5	1	9.1	3.4
Fertilizers.....	360	57	29.3	1.8
Small plants.....	325	50	31.2	0
Medium plants.....	27	6	32.6	4.0
Large plants.....	8	1	20.6	2.6
Forgings.....	101	35	44.5	8.9
Small plants.....	87	31	58.4	6.4
Medium plants.....	11	3	36.6	12.6
Large plants.....	3	1	28.1	8.3
Foundries.....	631	191	46.9	8.9
Small plants.....	529	171	58.6	8.0
Medium plants.....	80	15	39.0	9.9
Large plants.....	22	5	40.6	8.8
Logging.....	259	80	96.3	24.4
Small plants.....	219	70	105.8	6.4
Medium plants.....	29	7	88.7	31.3
Large plants.....	11	3	92.5	44.0
Metalworking machinery.....	355	143	20.3	2.1
Small plants.....	312	133	23.6	0
Medium plants.....	31	7	20.4	6.2
Large plants.....	12	3	17.4	9.8
Motor vehicles.....	180	51	8.1	2.7
Small plants.....	156	45	10.5	1.2
Medium plants.....	19	4	6.8	1.3
Large plants.....	5	2	7.2	4.6
Nonferrous-metal products.....	252	113	20.4	3.9
Small plants.....	231	109	25.6	0
Medium plants.....	17	3	21.5	7.0
Large plants.....	4	1	12.4	3.3
Paper.....	338	78	26.6	6.9
Small plants.....	293	68	33.7	8.0
Medium plants.....	32	7	22.1	6.1
Large plants.....	13	3	14.6	4.8
Planing mills.....	988	352	39.2	5.6
Small plants.....	839	320	32.5	0
Medium plants.....	118	24	39.8	4.7
Large plants.....	31	8	49.7	14.7
Sawmills.....	833	267	54.5	9.2
Small plants.....	672	234	51.4	0
Medium plants.....	143	30	56.3	10.9
Large plants.....	18	3	55.5	18.1
Shipbuilding.....	162	49	28.4	11.3
Small plants.....	151	46	31.9	10.5
Medium plants.....	7	2	29.7	16.8
Large plants.....	4	1	17.4	8.9

<sup>1</sup> "Good-performance" plants are plants with the lowest frequency rates in each size group, which employ approximately one-fifth of the employees within the group.

<sup>2</sup> See table 1 for size limits.



bring the safety performance of the entire group to a better level? Admittedly, the small plant presents a problem which the usual accident-prevention methods in large plants cannot meet.

Although a small plant may have safety committees and various other adjuncts of the safety program of larger plants, it rarely is large enough to warrant the employment of a full-time safety director whose entire activity consists in combating those unsafe work conditions and unsafe work practices which cause most accidents. (This observation obviously does not apply to industries in which "small" plants employ a thousand or more workers, as, for instance, in the shipbuilding industry.) The economic facilities of small plants necessarily impose limitations peculiar to small plants as such. It is encouraging to know, however, that small plants can be made safe, although the means of accomplishing this end present a challenge to the ingenuity of the safety engineer.

## NEW HOUSING IN NONFARM AREAS, 1941 AND 1942<sup>1</sup>

### *Summary*

WARTIME restrictions drastically curtailed residential construction during 1942. After almost a decade of constantly increasing volume, the number of new nonfarm dwelling units declined by almost a third from 715,000 in 1941 to 493,300 in 1942. This was the smallest total since 1938.

The number of units in publicly financed housing projects put under construction contract in 1942 was 193,791, or more than double the 95,740 started during 1941. Privately financed new units, on the other hand, declined to 299,509 in 1942, or less than half of the 619,460 in 1941. These diverse trends resulted from (1) the need for large volumes of housing in certain localities, much of which was to be more or less temporary, and (2) shortages of materials which forced the curtailment of nonessential building early in the year. In addition to the family-dwelling units, publicly financed projects started in 1942 will provide dormitory accommodations for 92,600 single persons and publicly financed trailer parks will contain 17,656 trailers.

The number of multifamily units started in 1942 was 33 percent greater than the number started during 1941, while 1- and 2-family units dropped 38 and 42 percent, respectively. Privately financed multifamily units alone declined 47 percent, but this was more than offset by the number of such units in publicly financed projects, particularly in the last half of 1942 when a large number of temporary apartment units for couples were put under construction contract.

The permit valuation of the 493,300 units started during 1942 is estimated at \$1,518,814,000, a decline of 39 percent from the \$2,502,818,000 estimated for 1941. This disproportionate decrease in valuation as compared to the number of dwelling units was due in part to restrictions on total construction costs and in part to the greater proportion of publicly financed projects in 1942 than in 1941. Since permit valuations understate building costs, the construction of the 493,300 units will involve expenditures of at least \$1,665,000,000.

### *Scope of Report*

Estimates of residential construction presented here are intended to cover all such activity within the "nonfarm area," which consists of all urban and rural nonfarm places. Urban areas are incorporated places with population of 2,500 or more in 1940, plus a small number of unincorporated civil divisions which are classified as urban by special rule. All construction intended for nonagricultural use in incorporated places with less than 2,500 population and in unincorporated areas is classed as rural nonfarm.

The basic data used in the preparation of current estimates are the building-permit reports collected by the Bureau of Labor Statistics. The Bureau began the regular collection of these reports in 1920, at first including only the larger cities. Coverage has been steadily expanded since that time until now more than 2,400 urban cities and

<sup>1</sup> Prepared in the Bureau's Division of Construction and Public Employment by George Schumm.

1,000 rural incorporated places report to the Bureau. In addition, since 1939 a small number of counties have reported building permits issued in their unincorporated areas. A valuable supplementary source of information, particularly with respect to rural nonfarm construction, was the recently completed Defense Housing Survey.<sup>2</sup>

Since building permits are issued when construction is about to start, estimates derived from permits represent future dwelling-unit capacity of buildings upon which work was started in the period specified. No attempt is made here to estimate the number of family accommodations gained by alterations and conversions, or those lost by demolitions.

### *New Residential Construction, 1910-42*

In spite of the sharp curtailment in new residential construction, the 493,300 nonfarm dwelling units started during 1942 represent a volume only slightly less than the annual average for the 22 years, 1920-41, inclusive. During that period, which covered a complete cycle of post-war boom, depression, and recovery, residential construction reached the all-time high of 937,000 units in 1925, and then dropped to 93,000 units, in 1933, or one-tenth of the 1925 peak. As can be seen from the accompanying table, this low level of activity was followed by 8 years of rapid and constant expansion approaching the level of the twenties and culminating in a volume of 715,000 units in 1941. The speculative nature of the boom of the twenties is reflected in the number of multifamily units put under construction as compared to 1-family units, particularly after 1925 when the volume of multifamily units approached that of 1-family units. The recovery which ended in 1941, however, was marked by no such tendency.

Although the series presented in table 1 shows total nonfarm estimates only for the years 1920 through 1942, estimates for 257 large cities are available for the decade 1910 through 1919.<sup>3</sup> These data are particularly valuable in comparing the effects of war on residential construction in 1917 and 1942. In both of these years residential construction declined sharply from the previous year's volume, but there are two noteworthy differences. In 1917, the decline followed a long period in which residential construction activity was maintained at a high level, and while there were housing shortages in a number of localities, the general situation in 1917 was probably more favorable than in 1942. In 1942 almost every locality was still suffering from a housing shortage accumulated during the early thirties. This widespread condition was still further aggravated by the scale of current war production as compared to that of World War I. Offsetting this, fortunately, was the existence in 1942 of a well-established public housing program prepared to play a vital role in the war. In 1917 no such program existed and no publicly financed units were finished until late in 1918.

<sup>2</sup> For a detailed discussion of the Defense Housing Survey, see Monthly Labor Review for May 1942 (p. 1149): New Dwelling Units in Selected Defense Areas, 1940-41 (reprinted as Serial No. R. 1462); also the Monthly Labor Review for December 1942 (p. 1203): Housing Provided in 138 Defense Areas (reprinted as Serial No. R. 1504).

<sup>3</sup> See Bureau of Labor Statistics Bulletin No. 713: Building Construction, 1941, p. 12.

These 257 cities contained approximately two-thirds of the urban population in 1910 and 1920, and grew, during the decade, at the same rate as the entire urban population. Although it is true that trends in rural nonfarm construction do not necessarily follow urban trends, it is felt that this does not affect the value of this series of new dwelling units started as the most reliable index of residential construction available for this decade.



TABLE 1.—*New Dwelling Units in Nonfarm Areas, 1920 to 1942*<sup>1</sup>

Year	Total units in nonfarm areas	Area <sup>2</sup>		Type of dwelling		
		Urban	Rural nonfarm	1-family	2-family <sup>3</sup>	Multi-family <sup>4</sup>
1920.....	247,000	196,000	51,000	202,000	24,000	21,000
1921.....	449,000	359,000	90,000	316,000	70,000	63,000
1922.....	716,000	574,000	142,000	437,000	146,000	133,000
1923.....	871,000	698,000	173,000	513,000	175,000	183,000
1924.....	863,000	716,000	177,000	534,000	173,000	186,000
1925.....	937,000	752,000	185,000	572,000	157,000	208,000
1926.....	849,000	681,000	168,000	491,000	117,000	241,000
1927.....	810,000	643,000	167,000	454,000	99,000	257,000
1928.....	753,000	594,000	159,000	436,000	78,000	239,000
1929.....	509,000	400,000	109,000	316,000	51,000	142,000
1930.....	330,000	236,000	94,000	227,000	29,000	74,000
1931.....	254,000	174,000	80,000	187,000	22,000	45,000
1932.....	134,000	64,000	70,000	118,000	7,000	9,000
1933.....	93,000	45,000	48,000	76,000	5,000	12,000
1934.....	126,000	49,000	77,000	109,000	5,000	12,000
1935.....	221,000	117,000	104,000	184,000	8,000	29,000
1936.....	319,000	211,000	108,000	250,000	15,000	54,000
1937.....	336,000	218,000	118,000	268,000	17,000	51,000
1938.....	406,000	262,000	144,000	317,000	18,000	71,000
1939.....	515,000	359,000	156,000	399,000	29,000	87,000
1940.....	603,000	397,000	206,000	486,000	37,000	80,000
1941.....	715,000	440,000	275,000	613,000	34,000	68,000
1942.....	493,000	277,000	216,000	383,000	20,000	90,000

<sup>1</sup> Data for 1920-29 are from National Bureau of Economic Research, data for 1930-42 from Bureau of Labor Statistics.

<sup>2</sup> Urban and rural nonfarm classifications for years 1920-29 are based on 1930 Census; for years 1930-42, upon 1940 Census.

<sup>3</sup> Includes 1- and 2-family dwellings with stores.

<sup>4</sup> Includes multifamily dwellings with stores.

### *New Dwelling Units, 1941 and 1942*

The 493,300 new dwelling units started in 1942 represented a decline of 31 percent from the 715,200 started during 1941. Privately financed construction declined 52 percent, while the number of units in publicly financed projects put under construction contract increased 102 percent.

The shift in emphasis to public housing of a temporary nature involving the use of a minimum of materials was primarily responsible for the 33-percent increase in the number of multifamily units started in 1942 as compared to 1941. Privately financed multifamily units alone declined 47 percent, while almost 6 times as many publicly financed multifamily units were started during 1942 as were started during the previous year. At the same time, the number of privately financed 1-family units declined 53 percent, while publicly financed 1-family units showed a gain of 65 percent. Both publicly and privately financed 2-family units declined in volume, the former by 40 percent and the latter by 52 percent.

The usual concentration of multifamily units in larger cities was noticeably reduced in 1942, when 34 percent of such units were in cities of over 100,000 population, compared to 70 percent in these cities in 1941. Publicly financed temporary apartment units for couples and other multiple-type projects located in smaller cities and in rural nonfarm areas near large centers of intense war activity were primarily responsible for this shift. Privately financed multifamily units also showed a tendency toward less concentration in large cities,



as only 63 percent of all privately financed urban multifamily units were in these cities in 1942, as compared to 72 percent in 1940 and 73 percent in 1941. Estimates of the number of new nonfarm dwelling units by population group and type of dwelling are presented in table 2.

TABLE 2.—*New Dwelling Units in Nonfarm Areas, 1941 and 1942, by Population Group and Type of Dwelling*

Area and population group (1940 Census)	Number of new dwelling units							
	All types		1-family		2-family <sup>1</sup>		Multifamily <sup>2</sup>	
	1942	1941	1942	1941	1942	1941	1942	1941
All nonfarm areas	493,300	715,200	382,900	612,600	19,800	34,300	90,600	68,300
Percent of change, 1941 to 1942	-31.0		-37.5		-42.3		+32.7	
Urban (cities)	277,100	439,600	197,900	349,100	18,100	28,400	61,100	62,100
500,000 and over	57,200	103,700	29,600	59,400	5,500	8,700	22,100	35,600
100,000 to 500,000	58,400	92,600	44,700	73,300	5,000	7,600	8,700	11,700
50,000 to 100,000	30,400	42,300	19,700	33,300	2,400	3,900	8,300	5,100
25,000 to 50,000	27,100	50,100	21,000	44,000	1,900	2,400	4,200	3,700
10,000 to 25,000	61,000	72,300	44,000	65,700	1,800	3,200	15,200	3,400
5,000 to 10,000	28,600	45,100	25,100	42,100	1,200	1,600	2,300	1,400
2,500 to 5,000	14,400	33,500	13,800	31,300	300	1,000	300	1,200
Rural nonfarm areas	216,200	275,600	185,000	263,500	1,700	5,900	29,500	6,200

<sup>1</sup> Includes 1- and 2-family dwellings with stores.

<sup>2</sup> Includes multifamily dwellings with stores.

The trend in new residential construction away from large urban centers, which marked the recovery of the late thirties and continued throughout 1941, was abruptly halted in 1942. Although the rural nonfarm total for 1942 decreased less from 1941 than did the total for any urban city-size group, this cannot be interpreted as evidence of the continuation of this trend. Just as increased speed and comfort in transportation facilities had contributed to the growth of rural nonfarm and small urban communities, so did increasing transportation difficulties resulting from gasoline and rubber shortages interrupt this growth. The large rural nonfarm total for 1942, larger than that for any previous year except 1941, was a direct result of the public housing program. The large tracts of vacant land which are required for projects built under this program are often not available inside the corporate limits of the communities to be served, and in some cases complete communities have been built to serve isolated war industries.

Within the urban area, cities of 2,500 to 5,000 population showed the greatest decline from 1941 to 1942—59 percent in privately financed units and 45 percent in publicly financed units. Decreases in the number of new units in other city-size groups ranged from 16 percent for cities of 10,000 and 25,000 population to 46 percent for the next highest group, 25,000 to 50,000 population. These comparisons are greatly affected by the inclusion of publicly financed units. For privately financed units alone, the corresponding decrease varied from 45 percent in the case of cities of 50,000 to 500,000 population to 54 percent for cities of over 500,000 population. In the case of publicly financed units, however, changes in volume in city-size groups other than that of 2,500 to 5,000 population ranged from a decline of 13 percent to an increase of 151 percent. Further details are to be found in table 3.

TABLE 3.—New Dwelling Units in Nonfarm Areas, 1941 and 1942, by Population Group and Source of Funds

Area and population group (1940 Census)	Total units		New dwelling units financed by—			
			Private funds		Public funds	
	1942	1941	1942	1941	1942	1941
All nonfarm areas.....	493,300	715,200	299,509	619,460	193,791	95,740
Percent of change, 1941 to 1942.....	-31.0		-51.6		+102.4	
Urban (cities).....	277,100	439,600	184,491	369,483	92,609	70,117
500,000 and over.....	57,200	103,700	41,232	88,963	15,968	14,707
100,000 to 500,000.....	58,400	92,600	39,951	72,483	18,449	20,117
50,000 to 100,000.....	30,400	42,300	19,669	35,770	10,731	6,550
25,000 to 50,000.....	27,100	70,100	19,908	41,848	7,192	8,252
10,000 to 25,000.....	61,000	72,300	30,915	60,329	30,085	11,971
5,000 to 10,000.....	28,600	45,100	20,728	40,766	7,872	4,334
2,500 to 5,000.....	14,400	33,500	12,088	29,314	2,312	4,186
Rural nonfarm areas.....	216,200	275,600	115,018	249,977	101,182	25,623

The largest number of new dwelling units put under construction in any one area during 1942 was 129,700 in the Pacific States—7,800 more than were started in this area during 1941 or over one-fourth of all the new units in the entire country. This was also the only area to show an increase over 1941. The next most active areas were the South Atlantic States with 92,800 units and the East North Central States with 81,000 units. During 1941 these two were second and first, respectively, in the number of units started. The greatest decrease occurred in the Middle Atlantic States where 49 percent fewer units were started in 1942 than during 1941.

Two-family and multifamily units were largely concentrated in the Pacific and South Atlantic States. In the Pacific States, the volume of multiple units started during 1942 was more than three times the number started during 1941, while in the South Atlantic States a 31-percent increase was registered. On the other hand, multifamily units in the Middle Atlantic States, where this type of construction was concentrated in the past, declined 58 percent. Details on the number of units, by type of structure and geographic division, are shown in table 4.

TABLE 4.—New Dwelling Units in Nonfarm Areas, 1941 and 1942, by Geographic Division and Type of Dwelling

Geographic division	Number of new dwelling units							
	All types		1-family		2-family <sup>1</sup>		Multifamily <sup>2</sup>	
	1942	1941	1942	1941	1942	1941	1942	1941
All divisions.....	493,300	715,200	382,900	612,600	19,800	34,300	90,600	68,300
Percent of change, 1941 to 1942.....	-31.0		-37.5		-42.3		+32.7	
New England.....	22,500	39,200	19,200	33,700	700	1,700	2,600	3,800
Middle Atlantic.....	59,900	118,600	45,600	92,900	6,200	6,400	8,100	19,300
East North Central.....	81,000	137,200	73,200	125,800	4,200	5,100	3,600	6,300
West North Central.....	23,900	44,800	21,700	41,300	600	1,506	1,600	2,000
South Atlantic.....	92,800	130,100	68,300	106,700	2,500	6,600	22,000	16,800
East South Central.....	27,400	38,600	19,100	33,600	1,700	3,700	6,600	1,300
West South Central.....	42,700	63,100	39,600	56,100	1,800	3,600	1,300	3,400
Mountain.....	13,400	21,700	12,500	19,400	300	1,000	600	1,300
Pacific.....	129,700	121,900	83,700	103,100	1,800	4,700	44,200	14,100

<sup>1</sup> Includes 1- and 2-family dwellings with stores.

<sup>2</sup> Includes multifamily dwellings with stores.

Approximately 40 percent, or 75,050, of the 193,791 publicly financed units put under construction contract during 1942 were situated in the Pacific States and 41,165, or over 20 percent, were in the South Atlantic States. These States, not highly industrialized before the war, now contain many vital war industries employing hundreds of thousands of workers. Consequently, a concentration of public housing in these areas was inevitable. In addition, 18,275 units were in the East North Central States and 14,694 units in the Middle Atlantic States. This latter figure represents a decline of 25 percent from the number started during 1941 when the second greatest concentration of public housing was in this area.

Although ranking third in total number of units started, the East North Central States had more new privately financed units during 1942 than any other geographic region. The 62,725 such units represent a decrease of 49 percent from the 122,921 started in this region during 1941. The only other regions where more than 50,000 privately financed units were started during 1942 were the Pacific States and the South Atlantic States. Complete details on the number of units by source of funds may be found in table 5.

TABLE 5.—*New Dwelling Units in Nonfarm Areas, 1941 and 1942, by Geographic Division and Source of Funds*

Geographic division	Total units		New dwelling units financed by—			
			Private funds		Public funds	
	1942	1941	1942	1941	1942	1941
All divisions.....	493,300	715,200	299,509	619,460	193,791	95,740
Percent of change, 1941 to 1942.....	-31.0		-51.6		+102.4	
New England.....	22,500	39,200	12,758	28,284	9,742	10,916
Middle Atlantic.....	59,900	118,600	45,206	99,081	14,694	19,519
East North Central.....	81,000	137,200	62,725	122,921	18,275	14,279
West North Central.....	23,900	44,800	17,550	40,535	6,350	4,265
South Atlantic.....	92,800	130,100	51,635	108,420	41,165	21,680
East South Central.....	27,400	38,600	14,341	34,461	13,059	4,139
West South Central.....	42,700	63,100	33,090	57,167	9,610	5,933
Mountain.....	13,400	21,700	7,554	20,349	5,846	1,351
Pacific.....	129,700	121,900	54,650	108,242	75,050	13,658

### *Privately Financed War Housing*

In spite of the increased demand for housing resulting from tremendously expanded war industries, privately financed new dwelling units started during 1942 were less than half as numerous as in 1941. Shortages of critical materials played a major part in this curtailment, but other factors such as transportation and the question of permanent need also affected the activity of private builders.

In order to assist private builders operating in areas of acute housing shortage, the Office of Production Management (later the War Production Board) began in September 1941 to grant priorities assistance in obtaining necessary materials. The real need for this type of assistance at that time is shown by the fact that priorities assistance was extended to an estimated 40 percent of all new units started during the first 3 months of 1942.

The growing shortages in critical materials, however, foreshadowed the halting of all nonessential residential construction. On April 9,



1942, the War Production Board issued conservation order L-41, prohibiting the start of any new residential construction without priorities (or special permission where priorities were not needed), excepting only construction of units having a cost of less than \$500 (later reduced to \$200) during any 12-month period or to replace structures "destroyed after December 31, 1941, by fire, flood, tornado, earthquake, act of God, or the public enemy." In addition, priority assistance was restricted to units with a sale price not to exceed \$6,000 or a shelter rental not in excess of \$50 per month. The location of any such construction was also restricted to sites within 2 miles of either the war industry to be served or of adequate public transportation.

Between September 1941 and the end of 1942 the War Production Board had approved preference ratings for 354,000 units, of which 169,000 were completed and 79,000 more were under construction.

Shortly after the start of the defense program, it was recognized that because of the unusual risks involved, private builders would require encouragement in supplying homes for defense workers in many areas. Consequently, Congress in March 1941 added title VI to the National Housing Act governing the operations of the Federal Housing Administration. This amendment allowed liberal insurance terms to builders who would provide low-cost housing to war workers in specific areas designated by the President. During 1941 only an estimated 27,500 of the estimated 220,300 FHA insured units on which construction was started were insured under title VI. During 1942, however, private builders took full advantage of the liberal terms offered, with the result that an estimated 112,300 units, or 70 percent of the 159,600 FHA insured units started, were under title VI. Insured under titles I and II were 192,800 units started during 1941 and 47,300 units started in 1942.

Although private builders began to curtail their operations late in 1941, their activity was not seriously affected until the second quarter of 1942 when Conservation Order L-41 was issued. The 81,000 units started during that quarter were 25 percent less than during the preceding 3 months and almost 60 percent less than during the corresponding quarter of 1941. Subsequent declines in volume were greater than could be explained on a seasonal basis. Whether or not this downward trend will continue throughout 1943 is dependent to a large extent on factors not directly concerned with the housing problem. There is nothing in the present war-housing program, however, to indicate that this trend will not continue.

### *Federally Financed War Housing*

Early in 1940, when the possibility of housing shortages began to threaten the defense program, Congress acted to utilize the organization of the United States Housing Authority to avert this danger by authorizing the Authority to provide homes for military personnel and defense workers (Public, No. 671, 76th Cong.). As the war-housing program grew in magnitude, other agencies, notably the Federal Works Agency which was charged with administration of funds appropriated under the Lanham Act (Public, No. 849, 76th Cong.), entered this field of activity and by February 1942, 16 different Federal agencies were concerned with the construction of war housing.<sup>4</sup>

<sup>4</sup> For a complete discussion of the war-housing organization as it existed in December 1941, see the *Monthly Labor Review* for May 1942 (p. 1139): *New Dwelling Units in Nonfarm Areas, 1940-41*. (Also reprinted as Serial No. R. 1461.)



In order to consolidate the war-housing activities of the various agencies, the National Housing Agency was created by Executive order on February 24, 1942. The Federal Public Housing Authority of the National Housing Agency is now responsible for the construction of all Federally financed nonfarm housing except that built on military reservations. For various reasons some projects are assigned for construction to other agencies, but most projects are constructed under the direct supervision of the Federal Public Housing Authority or of local housing authorities.

The Lanham Act mentioned above has been the principal source of funds for public war housing. In all, \$1,234,600,000 has been appropriated under this act and its amendments since its original enactment on October 14, 1940. An additional \$345,000,000 has been made available for temporary housing under the provisions of Public Act No. 9, 77th Congress; this money was reserved for housing which could not be built under the provisions of the Lanham Act or other acts. About \$300,000,000 more has been made available from all other sources combined.<sup>5</sup>

Originally, the emphasis in the public war-housing program was placed on the construction of permanent units which were to be used temporarily by defense workers. As the need increased for conserving the limited supply of materials and at the same time providing a maximum amount of shelter, it became necessary to provide a larger proportion of housing in temporary units. The magnitude of this shift is shown in table 6.

Temporary family units shown in table 6 include "demountable" type units as well as other types not built for permanent use. The temporary apartment units for couples are a recent development and consist primarily of 1-room apartments intended for occupancy by couples with at most one small child.

TABLE 6.—Quarterly Summary of New Nonfarm Dwelling Units, 1941 and 1942, by Source of Funds <sup>1</sup>

Period	Total dwelling units in nonfarm areas	Privately financed units	Publicly financed units			
			All public units	Permanent family units	Temporary and demountable family units	Temporary units for couples
Total, 1941.....	715, 200	619, 460	95, 740	83, 586	12, 154	0
First quarter.....	145, 100	122, 803	22, 297	21, 627	670	0
Second quarter.....	223, 100	190, 842	32, 258	29, 141	3, 117	0
Third quarter.....	211, 400	183, 073	28, 327	21, 596	6, 731	0
Fourth quarter.....	135, 600	122, 742	12, 858	11, 222	1, 636	0
Total, 1942.....	493, 300	299, 509	193, 791	<sup>2</sup> 60, 169	<sup>3</sup> 102, 266	31, 356
First quarter.....	138, 300	110, 912	27, 388	<sup>2</sup> 26, 689	699	0
Second quarter.....	166, 300	80, 880	85, 420	<sup>2</sup> 19, 398	56, 947	9, 075
Third quarter.....	99, 500	63, 519	35, 981	5, 387	<sup>3</sup> 18, 990	11, 604
Fourth quarter.....	89, 200	44, 198	45, 002	8, 695	<sup>3</sup> 25, 630	10, 677

<sup>1</sup> Does not include trailer units nor dormitory accommodations for single persons.

<sup>2</sup> Includes 1,000 units built by the Defense Plant Corporation and 615 units built by the New York City Housing Authority in the first quarter and 350 units built in the second quarter with New York State funds without Federal assistance.

<sup>3</sup> Includes 12,600 units and 3,421 units started in the third and fourth quarters, respectively, with U. S. Maritime Commission funds.

<sup>4</sup> See Monthly Labor Review for June 1942 (p. 1257): Housing for War Workers. (Also reprinted as Serial No. R. 1464.). An additional \$600,000,000 was made available by the amendment to the Lanham Act in October 1942 (Public, No. 763, 77th Cong.).

In addition to the families to be accommodated in permanent and temporary dwelling units, dormitory accommodations for 9,100 persons were put under construction during 1941 and for 92,600 persons during 1942. These include the dormitory units, built under the civilian war-housing program of the War Department. Trailer parks built with Federal funds in 1942 will contain 17,656 family trailer units as compared to 4,186 during 1941.

### Estimated Permit Valuation

The permit valuation of the 493,300 new nonfarm units upon which construction was started during 1942 is estimated at \$1,518,814,000 of which \$943,026,000 was for privately financed units and \$575,788,000 for publicly financed projects (table 7). The 715,000 new units started during 1941 had a permit valuation of \$2,502,818,000 of which \$2,180,805,000 was for privately financed and \$322,013,000 was for public projects. The disproportionate decrease from 1941 to 1942 in total valuations as compared to the number of dwelling units is due in part to the WPB conservation orders which limit the amount of materials which may be used for each dwelling unit, and in part to the larger proportion of publicly financed units included in the 1942 total.

For a number of reasons, the estimates of construction costs which are given by builders when applying for permits generally understate actual costs. Preliminary results of a study made by the Bureau of Labor Statistics indicate that costs of 1-family houses average 15.5 percent more than the valuations entered on the permit records. Further study may modify this conclusion and may also show a different relationship between costs and permit valuations of 2-family and multifamily units. In the absence of more complete data, permit valuations of privately financed units should be increased 15.5 percent to yield estimated construction costs. Construction costs for publicly financed units are obtained from contract awards and hence no adjustment of public totals are necessary. With these considerations in mind, construction of the 493,300 units in 1942 and 715,000 units in 1941 are estimated to involve expenditures of approximately \$1,665,000,000 and \$2,840,000,000, respectively.

TABLE 7.—Permit Valuation of New Housekeeping Dwellings in Nonfarm Areas, 1941 and 1942, by Geographic Division and Source of Funds

Geographic division	Estimated permit valuation (in thousands of dollars)					
	Total		Private funds		Public funds	
	1942	1941	1942	1941	1942	1941
All divisions.....	1,518,814	2,502,818	943,026	2,180,805	575,788	322,013
Percent of change, 1941 to 1942.....	-39.3		-56.8		+78.8	
New England.....	83,852	163,874	48,589	125,402	35,263	38,472
Middle Atlantic.....	225,035	489,836	167,103	417,473	57,932	72,363
East North Central.....	307,009	569,933	240,876	520,098	66,133	49,835
West North Central.....	69,191	151,293	52,148	136,466	17,043	14,827
South Atlantic.....	266,108	389,333	137,921	320,500	128,187	68,833
East South Central.....	65,189	91,994	29,041	79,549	36,148	12,445
West South Central.....	107,797	179,053	82,498	160,939	25,299	18,114
Mountain.....	37,765	64,165	20,328	59,994	17,437	4,171
Pacific.....	356,868	403,337	164,522	360,384	192,346	42,953

## WOMEN'S WORK IN WARTIME <sup>1</sup>

By FRANCES PERKINS, *Secretary of Labor*

AT THE end of our first year of war, we find ourselves literally in the midst of a sweeping industrial revolution. Already this has led to phenomenal changes in the trends and patterns of women's employment. At the moment many more women are engaged in gainful employment than at any other time in our history. All told, they number about 15,000,000, or over 3,000,000 more than at the census taken March 31, 1940. Unemployment has dropped to about 600,000 woman workers—not many more than should be expected on account of sickness, change of job, and comparable reasons.

How many women are actually in war employment? This is a question we are constantly being asked. It is impossible to give a definite answer, though the latest estimates place the number of women now in war work at about 4,000,000 and the number to be so employed by the end of 1943 at 6,000,000.

However, since we are all really involved in the war effort, and since so many so-called "civilian" services are essential for building up and maintaining our defenses within the country, it is impossible to differentiate in a clear-cut fashion between war work or other types.

Especially is this statement true of women. In the first place hundreds of thousands of women are being called on to enter the labor force for the first time as a result of the war. Such women are recruited not only for jobs in the war program but to fill vacancies in civilian types of work left by men inducted into the armed forces or war establishments; or when women leave peacetime jobs for war work, these positions also are being taken over by women drawn from lower-paid or nonenumerative pursuits.

Altogether the past year has seen conspicuous shifts among women as workers. The most spectacular, to be sure, is the great influx of women into fields normally considered to be masculine domains. At first women were called on principally to supplement the skills of men in war establishments; in more recent months women have been substituted for men in a steadily widening variety of jobs.

This trend has been notably characteristic of war plants, but it is true also in other avenues of employment. For example, we find there is a gradual replacement in various localities of men by women—in laboratories, banks, businesses, ticket offices; at automobile stations and airports; on busses, trucks, trolley cars, trains; as tax collectors, radio announcers, elevator operators, policemen, guards, messengers, and for numerous other occupations. Many of these jobs are not counted as war work, but the opportunities have come to women as the result of male-labor shortages caused by war developments.

Other occupational shifts for women may be less striking but none the less traceable to the emergency. Take the case of domestic workers, who have started an exodus from household employment, to the despair of many housewives in desperate need of help. Former cooks and housemaids are finding employment in hotels, restaurants, laundries, or as charwomen, elevator operators, or messengers in

<sup>1</sup> Address delivered at luncheon meeting of New York Women's Trade Union League, New York City, December 12, 1942.



private or public enterprises. Some former household workers are also getting jobs in arsenals or other war plants.

Many women have left their normal employment as saleswomen, as beauty or telephone operators, or as office workers, for more attractive and oftentimes better-paying jobs, some of an emergency nature, others more definitely related to civilian needs. Professional women, including teachers and social workers, also have seized unusual opportunities to work in Government agencies, in the personnel divisions or laboratories of war industries, or to serve with the Red Cross, United Service Organization, or in the military auxiliary units such as the WAACS, WAVES, SPARS, and WAAFS. The demand for trained nurses for both war and civilian purposes has been phenomenal. Increasing numbers of homemakers are changing their status by accepting jobs because of patriotic urge or economic need rooted in the war and its induction of many normal family breadwinners into the military services.

A definitely encouraging trend has been a break-down in many quarters of prejudices against certain types of woman workers. Married women who, during the years of depression, were greatly discriminated against in regard to employment are now in demand, though the Government urges that special efforts to secure the employment of women with young children be deferred until full use has been made of all other sources of local labor supply. The War Manpower Commission has issued a directive to the Defense Health and Welfare Services to coordinate, integrate, and develop programs for day care of children of working mothers. Several Federal agencies, including the Children's Bureau of the United States Department of Labor, are already carrying on programs in this field.

The Federal Government is definitely advocating the employment of older women—those of over 40 or 50. Many such women who a year ago were unable to secure any kind of job are finding themselves at long last acceptable and employable. Negro women in unprecedented fashion are gaining footholds in a number of the occupational fields formerly closed to them.

### *Women in War Industries*

Let us take a quick view of some of the key war industries that have opened up to women.

Take the aircraft industry. It represents the most dramatic of all employment for women. Just a week before the attack on Pearl Harbor, fewer than 4,000 women were in aircraft production. Now there are 118,000 in the aircraft industry, helping to make all types of planes from the little trainer, called the Valiant, and the fighters such as the Lightning and Mustang to the big bombers like the Flying Fortresses and Liberators.

Plants for manufacture of ammunition for both firearms and artillery have taken on thousands of women and are still expanding their woman force. The war-instrument industry—the making of aircraft, fire-control, surgical, and dental equipment—is another field where women are definitely gaining ground. Women seem particularly well fitted for the work on instruments, as these products are relatively small and light and made up of intricate parts.



In the manufacture of cannon and fire arms, the feminine force is now growing conspicuously. In general, women in this field are used on more different types of machines than in any other industry. Much "worrying of the metal" (the trade term for machinery parts) is necessary, and women are particularly good at this.

In the heretofore strictly masculine machine-tool industry women began last summer to gain their first foothold since World War I. Only to a limited extent are women engaged in the manufacture of parts for machine tools proper, but most of the firms visited in a recent study had plans for putting women on this work. Already women in a number of the plants were on operations making side-line products, such as machine-tool attachments like cutters and broaches, also such products as gages, calipers, and micrometers. Some women are now employed in foundries, doing core making.

Even the steel industry, faced with a shortage of men, anticipates much more extensive use of women, for such machine work as nail and wire drawing, operating of cranes and other lifting apparatus, also for driving in-plant industrial tractors. One steel company, for example, talks of hiring 4,000 women for new jobs and also for replacement of men inducted into the armed forces.

Shipbuilding is much discussed in newspapers just now, as a field opening up to women. For some months, however, the Government navy yards on both the east and west coasts have been leading the way in the hiring of women.

The largest number of women in any of the key war industries is found in the manufacture of electrical machinery and equipment—even in peacetime this field employs large numbers of women.

In this brief survey of women at work in war production we must not overlook the hundreds of thousands of women remaining at their regular peacetime machines but now turning out equipment for the armed forces. An inventory of cantonments would reveal, in addition to combat material, a great array of essential materials made to a large extent by women. These include uniforms, work clothes, gloves, shoes, blankets, sheets, electric lights, radio sets, mess kits, canned goods and other food products, kitchen equipment, cutlery, parachutes, rubber rafts, balloons, life belts, watches, clocks, medical and office supplies—to mention only a few of the countless articles.

I need scarcely remind you of the conversion of plants, and even of whole industries from civilian to war production. The 100-percent conversion of the automobile industry is the most stupendous achievement along this line, but many interesting illustrations can be cited of the ways in which manufacturers have solved their problems and those of their employees by changing over to a war basis. Here are some examples of plant conversions: From lingerie to camouflage netting; from baby carriages to field-hospital food carts; from lipstick cases to bomb fuses; from outboard motors to gun carriages; from business machines to shells; from hair-clipping machines to projectiles; from silk ribbons and silk goods to parachutes; from beer cans to hand grenades; from mouse traps to tripod mounts; from fishing reels to percussion primers; from adding machines to automatic pistols; and from vacuum cleaners to gas-mask parts.

War employment of women is not confined to production, but extends in network fashion into many of our normal peacetime

services such as Government, communications, business and scientific pursuits, social and welfare work, and agriculture. In agriculture and the Federal service the employment of women has conspicuously increased.

### *Training Programs*

With women drawn into so many new avenues of employment and unusual occupations in the war effort, the training programs inaugurated for the emergency have during the past year been extensively opened up to women.

One of the chief training programs now generally open to women since our entrance into the war is, as you know, the Vocational Training for War Production Workers, financed by the Federal Government, sponsored by the United States Office of Education, and conducted by the State vocational education boards. The curriculum for this training program includes preemployment and refresher courses, also supplementary courses for women already employed but wanting to acquire higher skills. Through these courses women are being trained in various kinds of machine operations, welding, sheet-metal assembly, and inspection work. Women may also take courses in blue-print reading and use of measuring tools, and courses giving some knowledge of metals, and so on.

About 250,000 women have been so trained since this program started, over 2 years ago. Some 61,000 women were enrolled in courses at the end of August 1942.

The Training-Within-Industry program, now in the Manpower Commission, is proving of great assistance to industry. Experts loaned by industry to Government furnish to individual plants up-to-date advisory service on advanced methods of procedures for upgrading and job instruction. Hundreds of factories all over the country have been using this service and in a number, woman workers along with men, have derived its benefits.

Then there are Government-financed courses on the college level, designated as the Engineering, Science, and Management War Training Program. Some 13,000 women are now in these courses, which train women as engineering aides in drafting and laboratory work, and for supervisory jobs, etc.

Of the need for zeal and vigilance in promoting a safety and health program, we here are well aware. On workers' keen eyes, skilled hands, brawn, stamina—on their steady performance without loss of time—depends our country's ability to win the battle of production. Industrial hazards loom large at this time when production must be expanded and speeded up, and when so many new workers, including much larger proportions of women, are being drawn into industry for the first time. They are being used on new kinds of machinery, on new processes, and required to handle new materials and substances, the effects of which on workers have not been tested.

Statistics on industrial accidents tell an appalling story and call for much greater precaution. In 1941 industrial accidents caused the death of 19,200 workers, and injuries to over 2,000,000 persons. Of these 100,000 incurred permanent disabilities.

The United States Department of Labor, through the Division of Labor Standards and the Women's Bureau, is carrying on an intensive

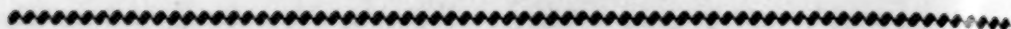
and extensive program to help prevent industrial injuries and to promote the health and efficiency of all workers, both men and women.

*Post-War Action*

At the close of the war women will have to continue to take the place of men who fail to return or who come back maimed. Then, we must see to it that such women who have stepped so willingly and heroically into war work today—women who have left their homes or abandoned their peacetime pursuits—are given their due chance at freedom from want. Then, as the soldiers are mustered out of their military duties back to their civilian employment, women must not be unfairly accused of taking men's jobs, as at the close of the last war. When this war is over, Government, labor, and industry, in making plans for our labor force, must not overlook the needs of American women, who as unknown soldiers and unidentified heroes on production lines have made their contributions and their sacrifices, too, for victory and democracy.



# Wartime Labor Policies



## REGULATIONS ON THE 48-HOUR WEEK

ON February 28, 1943, the War Manpower Commission issued regulations No. 3 to put into effect the Executive order of the President (No. 9301) establishing the 48-hour week wherever deemed necessary by the War Manpower Commission.<sup>1</sup> The Commission also issued general order No. 5 designating 32 local labor-shortage areas as subject to the provisions of the Executive order, and general order No. 6 stipulating that these provisions will apply nationally to the lumber and nonferrous-metal-mining industries. Regional directors are authorized from time to time to designate additional areas and activities if they find such action will reduce labor shortages which are holding back the war effort.

Defining a "minimum wartime workweek" as one of 48 hours or the greatest number less than 48 that may be feasible, the War Manpower Commission divided employers in the 32 areas into the following three groups: (a) Those whose extension of the workweek to the "minimum wartime workweek" would not involve release of any workers; these employers may extend hours without the Commission's permission. (b) Those whose workweek extension would release employees; these employers may not dismiss anyone without permission of the Commission, as the United States Employment Service will seek to arrange for suitable employment prior to such dismissal. (c) Those employers who find it impractical to change present hours.

The regulations provide that the lengthened workweek will not apply to farms, Government employees, youths under 16, or part-time workers. Furthermore, it does not apply to business houses in which fewer than 8 persons are employed regularly; the exclusion of these establishments is based on the assumption that in smaller establishments the extension of the workweek would not result in the release of workers.

A summary of the regulations follows.

### *Application of Executive Order*

The Executive order of the President is to be so "construed and applied as best to effectuate its fundamental purpose, which is to aid in meeting the manpower requirements of our armed forces and our expanding war production program by a fuller utilization of our available manpower."

Effectuation of this purpose requires that in situations of labor shortage, employers should not hire new workers when their manpower needs can effectively be met by a fuller utilization of their current labor force. In addition, workers who can be released by an extension

<sup>1</sup> See Monthly Labor Review, March 1943 (p. 471).

of the workweek should be released under circumstances which will permit and facilitate their effective utilization elsewhere in the war effort.

### *Designation of Areas and Activities*

The Chairman of the War Manpower Commission is authorized from time to time to designate areas and activities as subject to the provisions of the Executive order. Regional manpower directors may designate additional areas and activities within their respective regions, if they find that such action will aid in alleviating labor shortages which are impeding the war effort. Until an area or activity has been so designated, employers therein will not be required to extend their workweek.

### *Authority of Regional and Area Directors*

Regional and area manpower directors are authorized and directed to determine all questions arising within their respective regions and areas with respect to the interpretation and application of the regulations in conformity with procedures and instructions issued by the Executive Director of the War Manpower Commission.

### *Minimum Wartime Workweek*

"Minimum wartime workweek" is defined in the regulations as a workweek of 48 hours, except in cases where a workweek of 48 hours (a) would be impracticable in view of the nature of the operations, (b) would not contribute to the reduction of labor requirements, or (c) would conflict with any Federal, State, or local law or regulation limiting hours of work. In such cases "minimum wartime workweek" means the greatest number of hours (less than 48) feasible in the light of the nature of the operations, the reduction of labor requirements, or the applicable Federal, State, or local law or regulation.

### *Extension of Workweek in Designated Areas and Activities*

If the workweek applicable to any worker employed in a plant or factory subject to the provisions of the Executive order is less than the minimum wartime workweek, then the workweek is to be extended as follows:

(a) Whenever extension of such workweek to the minimum wartime workweek would not involve the release of any workers, the affected employer shall proceed promptly to extend the workweek to the minimum wartime workweek.

(b) Whenever the regional or area manpower director or a designated representative of either determines that extension of such workweek would involve the release only of workers who can be promptly placed in suitable employment with other employers, the affected employer will be notified of such determination and thereupon shall proceed promptly to extend the workweek to the minimum wartime workweek.

(c) If extension of such workweek would involve the release of some workers, and the regional or area manpower director or designated representative has not determined and notified the employer that such

workers can promptly be placed in suitable employment with other employers, the workweek shall not be extended except as authorized below. On or before April 1, 1943, the affected employer shall submit to the regional or area manpower director or the designated representative of either director, a statement as to the number of workers whose release would be involved and their occupational classifications, together with a proposed schedule for the timing of such releases. The regional or area manpower director or designated representative will authorize a schedule for the extension of the workweek and for the release of workers in terms of labor-market needs, and the employer shall thereupon proceed to extend the workweek in accordance with such schedule.

If the employer has failed to comply with these provisions; he may not hire any worker in an area or activity designated as subject to the provisions of the Executive order.

### *Exclusions*

The regulations are not to be construed or applied so as to require the extension of a workweek to (a) any establishment in which fewer than 8 workers are regularly employed; (b) agricultural employment; (c) employees of a State or political subdivision; (d) youths under the age of 16 years; or (e) part-time employees.

### *Areas and Activities*

The Chairman of the War Manpower Commission, in general order No. 5, designated the following areas as subject to the provisions of the Executive order establishing a minimum workweek of 48 hours:

Akron, Ohio; Baltimore, Md.; Bath, Maine; Beaumont, Tex.; Bridgeport, Conn.; Brunswick, Ga.; Buffalo, N. Y.; Charleston, S. C.; Cheyenne, Wyo.; Dayton, Ohio; Detroit, Mich.; Elkton, Md.; Hampton Roads, Va.; Hartford, Conn.; Las Vegas, Nev.; Macon, Ga.; Manitowoc, Wis.; Mobile, Ala.; New Britain, Conn.; Ogden, Utah; Panama City, Fla.; Pascagoula, Miss.; Portland, Oreg.; Portsmouth, N. H.; San Diego, Calif.; Seattle, Wash.; Somerville, N. J.; Springfield, Mass.; Sterling, Ill.; Washington, D. C.; Waterbury, Conn.; Wichita, Kans.

In general order No. 6, the Chairman designated the following activities as subject to the provisions of the Executive order:

1. The mining (including the development of ore properties), dressing, and beneficiating (milling) of the following nonferrous metals and their ores: Aluminum, antimony, arsenic, beryllium, chrome, cobalt, columbium, copper, lead, magnesium, manganese, mercury, molybdenum, silver, tantalum, tin, titanium, tungsten, uranium, vanadium, zinc, zirconium, and all other nonferrous metals and their ores.

2. (a) All logging operations.

(b) All operations of all sawmills, planing mills, veneer mills, plywood mills, cooperage-stock mills, cooperage establishments, shingle mills, wooden-box factories, wood-pulp mills.



## POLICY OF WAR MANPOWER COMMISSION ON WOMAN WORKERS

THE War Manpower Commission has issued the following statement on its policy of recruiting, training, and employing woman workers.

### *Recruitment and Referral of Woman Workers*

To promote the rapid and orderly induction of women into the labor market and to insure their subsequent employment and training opportunities, the War Manpower Commission hereby declares as basic national policies for the recruitment, referral, training, and employment of women that—

(a) Qualified women who are unemployed and who are registered in local offices of the United States Employment Service be referred to employment and training opportunities on a basis of equality with men, due regard being given to their qualifications for the available work, to the physical requirements of the occupations, and to working conditions.

(b) Women, without children under 14 years of age, be actively recruited for employment and training, but that this principle shall not be construed to mean that women who are responsible for the care of young children and who desire work are to be deprived of an opportunity for training or employment.

(c) Special efforts to secure the employment of women with young children be deferred until all other sources of local labor supply have been exhausted, in order that established family life will not be unnecessarily disrupted.

(d) In those areas in which industrial concentration and lack of housing, transportation, and other community facilities compel the fullest utilization of every labor resource in the locality, every effort be made to utilize fully women qualified and able to contribute to war production or essential civilian employment before workers are recruited from outside the locality.

(e) Adequate facilities be provided for the care of the children of working mothers, which facilities should be developed as approved community projects and not placed under the auspices of individual employers or employer groups.

(f) Every effort be made to recruit and refer women, including older women, for employment or training on the basis of their qualification for an occupation without discrimination because of race, national origin, or creed.

### *Training of Woman Workers*

(a) Where pre-employment training is desirable and employment opportunities are or will be available, women be referred to war production pre-employment training courses conducted by public vocational schools on a basis of equality with men; that is, on the basis of their qualification for the occupation in which training is offered, due consideration being given to the physical requirements of the occupation.

(b) Women be admitted on a basis of equality with men to enrollment in the Engineering, Science, and Management War Training

Program conducted by colleges, universities, and technical schools in cooperation with the United States Office of Education.

(c) Woman workers now employed be encouraged to enroll in supplementary war training courses conducted by public vocational schools, in order that a greater number of women may prepare themselves for additional responsibilities and for upgrading within the plant.

(d) Women participate equally with men in plant training programs. Such programs should include adequate induction training, on-the-job training, upgrading, training for woman foremen and supervisors, and technical training.

### *Employment of Woman Workers*

(a) Management and labor organizations remove all barriers to the employment of women in any occupation for which they are or can be fitted.

(b) Every method available be utilized to assure that woman workers be completely accepted as a part of the Nation's manpower needed for all-out production.

(c) In order to provide a basis for efficient selection of women for training and job assignment and to increase the number of women employed, management immediately analyze all occupations within the plant from the unskilled to the technical levels; determine the types of work that women could do; take steps to prepare the plant for the maximum employment of women; consult with its supervisory staff and representatives of its employees' labor organizations in order to promote acceptance of women as coworkers and to help new woman employees adjust to their working environment; and periodically review practices and policies and make such additional adjustments as are necessary to obtain full utilization of women.

(d) Wage rates, including the entrance rate, be determined for all workers on the basis of the work performed, irrespective of sex.

(e) The following basic principles whether or not incorporated in State laws and regulations be applied and preserved in order to promote maximum production efficiency and to safeguard the health and welfare of woman workers: (1) One day of rest in seven; (2) an 8-hour shift and a maximum 48-hour week, except to the extent that temporary exemptions under adequate safeguards are necessary to meet emergencies; (3) adequate meal and rest periods or time, and proper facilities therefor; adequate medical care and other safeguards for health and safety.

(f) Every reasonable effort be made to adjust assignments to shifts of women with young children, in such manner as will cause the least disruption in their family life.

### *Women Able to Accept Employment*

(a) Upon advice from a representative of the War Manpower Commission that additional woman workers are required in their locality because of existing or imminent labor shortages, all women able to accept employment register for employment or training with the nearest local office of the United States Employment Service.

(b) Women interested in work outside their locality not leave their own community in search of work or training in another community

without first (1) registering for employment at the nearest local office of the United States Employment Service and (2) securing advice from such office that such work or training is available.



## REGULATIONS FOR EMPLOYMENT OF WOMEN IN AUSTRALIA, 1942

AN ACT to "encourage and regulate the employment of women for the purpose of aiding the prosecution of the present war" was passed by the Australian Government on October 6, 1942.<sup>1</sup> The provisions of the law were retroactive to September 23, 1942. Power was granted to the Governor General to make necessary regulations to carry out the legislation, and to repeal or alter any of the provisions of the schedule to the act relating to employment of women.

### *Women's Employment Board*

Administration of the regulations was assigned to the Minister of State for Labor and National Service. Provision was made for establishing a Women's Employment Board, having a chairman, one representative each of the Commonwealth and employers, and two representatives of employees—all to be appointed by the Minister of Labor. The functions of the Board are to fix rates of pay, hours, and conditions of employment of certain women employed in industry during the emergency created by the present war.

Decisions, including any variation of a decision, may be referred to the industrial authority of the State of Western Australia by the Board, in so far as they relate to employment of females in that State. Any decision in such cases by the industrial authority of Western Australia has the same force as a decision made by the Board. A copy of every decision by the industrial authority must be forwarded to the Board, and the Board must review it within 3 months of the date of the decision, either confirming, varying, or setting it aside.

### *Conditions of Employment*

If an employer has hired women since March 2, 1942, to perform work usually done by men, or which was not previously performed in Australia, he must apply to the Board for a decision on the conditions of employment. Copies of the application are to be furnished to the secretary of the Board and to such employee and employer organizations as the Board may specify.

Upon receipt of any such application, decisions must be made by the Board as to whether women may be employed or continue to be employed in the designated work; the maximum hours to be observed (daily and weekly); the special conditions, if any, concerning safety, health, and welfare standards; and the rates of pay. If it is decided that the employment is to be probationary, the period of probation and the rate of pay must be fixed by the Board. In no case may the rate of pay of a probationer be less than 60 percent of the rate for adult males employed on work of substantially the same kind.

<sup>1</sup> Data are from report of Nelson T. Johnson, United States Minister, Canberra.



Rates of pay fixed for females, in general, must be just and proper and must be based on their efficiency. The rate for any adult female employed may not be less than 60 percent nor more than 100 percent of the rate of adult males employed on work of a substantially similar nature, and a decision of the Board may not be used to bring about reduction of a rate for women in employments outside the scope of the Board.

Any female worker or any employee organization to which such a worker belongs may apply to the Board for a determination of the rate of pay, hours, and conditions in respect of work formerly done by males or of new work. In such cases the Board must deal with the application in the same manner as in case of an application by an employer.

### *Changes in Board Decisions*

On the request of parties bound by a decision of the Board or on its own initiative, the Board may vary the decision, reopen any question in relation to the decision, give an interpretation of any term of the decision, or set aside the decision or any part of it. Decisions and variations thereof are binding on the employers specified and the employees and employee organizations affected.

When filed with the Commonwealth Court of Conciliation and Arbitration (as required), the Board's decisions are enforceable as though they were awards of the Court. Industrial authorities are forbidden to make awards that conflict with the Board's decisions, during the effective period of such decisions. Notwithstanding anything contained in the regulations here reviewed, or any award, order, etc., any woman may be employed in the Department of Munitions or the Department of Aircraft Production, or, with the approval of the director of either of these two departments, by any employer, on work reserved for males. Within 14 days after female workers begin such employment, the secretary of the Department concerned must see that the Board is notified, and give a full description of the work on which she is employed. A copy of the notification must be furnished to the secretary of the Department of Labor and National Service and to such employee and employer organizations as the Board may specify. The Board is required to give the same consideration to these notifications as to others, except that it has no authority to forbid the employment of women in such work. Pending a decision by the Board, any woman so employed is to be paid at a wage rate determined by the appropriate minister of state.

### *Other Provisions*

Any wage payment to be made in accordance with a decision, order, or interpretation of the Board under these regulations is effective from the date when the decision was made, irrespective of the effective date of the regulations. If the rate specified is less than the rate payable immediately before the decision, the lower rate cannot be applied to work done earlier than the date of the decision nor, in any event, earlier than March 2, 1942. Any payment made to the woman worker for work prior to the decision must be set off against any payment to be made under the decision.

Accredited representatives of employee organizations may inspect the premises where women are performing labor ordinarily done by men, provided they give reasonable notice and make the inspection in such a way as not to interfere with work on the premises.

Notwithstanding any State laws governing factory employment of females, women may work on munitions of war, and may be employed on such days and for such hours as the Minister of Labor authorizes and under such conditions as he fixes. Before approving conditions, the Minister must consult with the appropriate labor organization.

The Board may hear evidence and make necessary inspections, and employers are required to give members or representatives of the Board free access to their premises for the purpose of administering these regulations.



## CANADIAN REGULATIONS FOR EMPLOYMENT OF CIVILIANS

THE National Selective Service Civilian Regulations of Canada were amended and consolidated on January 19, 1943. Among the changes made, the most important is a provision that civilians of draft age may be used to alleviate labor shortages by compulsory transfer from one job to another. To prevent employers from hoarding labor that is not immediately required, employers are obliged to notify the employment service of any surplus workers in their employ. Persons aged 16 to 65 years, except full-time students, housewives, and clergy, must register for work if they are without gainful employment for 7 consecutive days. Agricultural workers are limited to a total of 60 days of work in a year in another industry, unless they have a permit.

Governmental policies relating to the utilization of manpower in the prosecution of the war are to be carried out by the Minister of Labor, who is to employ voluntary means of placement where practical, and shall exercise compulsion only when it is necessary. In the exercise of his functions the Minister is to maintain and operate the employment service; take necessary steps to insure efficient use of manpower by employers other than the Crown; make surveys of manpower resources and needs; recommend action to the armed services and governmental agencies, after consultation with them; and recommend to the Governor in Council such measures as are necessary to coordinate the activities of the armed and other services, after consultation with the agencies affected.

A summary of the regulations issued by the Canadian Government follows.<sup>1</sup>

### *Regulation of Hiring and Discharge*

#### GENERAL EMPLOYMENT PROVISIONS

When an employer needs to employ a worker, or will be laying off or discharging an employee, he must notify the local employment office at once, giving such information as may be required. Any person who is 16 years of age and under age 65, who has been unemployed for 7 consecutive days, must register with the employment

<sup>1</sup> Data are from Department of Labor, National Selective Service Mobilization Section, National Selective Service Civilian Regulations, January 19, 1943 (P. C. 246).

office, furnishing the prescribed information. Persons of the categories already mentioned are exempt from this provision. No person may have "in his employment more persons of any particular qualifications than are reasonably necessary for his immediate needs without notifying the local office that the persons whose services are not immediately necessary are available for employment."

*Separation from employment.*—An employer may not terminate the employment of an employee unless he has given him (on a prescribed form in duplicate) 7 days' notice of separation, exclusive of the date of notice, or such shorter notice as the selective service officer allows. Exceptions are permitted (1) for employees on building construction, (2) if the employee has been employed for less than 1 month, (3) if weather, fire, explosion, or other calamity make it impossible to utilize the employee's services, or (4) if the employee has refused to accept a transfer, under a collective labor agreement or under a usual practice in the industry, to alternative employment with a lower rate of pay. In any of the foregoing circumstances, the employer must give the worker notice of separation in prescribed form, in duplicate, before laying him off or terminating his employment.

No employee may terminate his service (except to undergo alternate service under the National Selective Service Mobilization Regulations, or to enter service in the armed forces) without fulfilling the same requirements as to notice that the employer must observe, unless the employee is engaged on building-construction work or has been in the employment for less than 1 month, in which cases he must give his employer notice in prescribed form in triplicate before terminating his employment.

The selective service officer may waive the requirement of 7 days' notice to the employee, if specified conditions beyond the employer's control (such as a power shortage) make such notice impossible and if the employer cannot use the worker's services in alternate employment; in no case, however, may less than 2 days' notice be given. No employer or employee is bound by these provisions if they conflict with the terms of a collective agreement in force before September 1, 1942.

If an employer suspends an employee for serious misconduct, the employee may—within 7 days, exclusive of the day on which he was suspended—apply in writing to a selective service officer to review the case. If the worker fails to make such application, his employment is deemed to have been terminated. However, if the suspended employee belongs to an organization having a collective agreement with the employer, providing for review of suspension cases, application by the employee is not necessary. If the selective service officer finds that the employee is guilty of misconduct, the employment is deemed to have terminated on the date of the suspension. When the officer decides in favor of the employee, he must be reinstated with full pay from the time when the application for review was made.

*Permits to seek employment.*—On request, an employee who presents a notice of separation signed by his employer must be furnished by the selective service officer with a permit to seek employment. The permit must state where and under what conditions the worker may be employed; it may be revoked or extended in accordance with principles and directions of the Minister of Labor. No employer may hire an employee who does not present a permit, and no person



may seek work without a permit. When an employee is hired under the prescribed procedure, the employer must deliver a copy of the permit to the local employment office within 48 hours, and retain a copy on file. No employee may be retained unless the requirements with respect to a permit have been met.

*Advertisements.*—Prospective employers and employees are forbidden to advertise to secure labor or employment, respectively, unless they have obtained permission. The selective service officer is given authority to grant or deny a permit, or (with the applicant's consent) to make such arrangements as he deems proper, at the applicant's expense.

#### PROVISIONS FOR SPECIAL CLASSES OF WORKERS

*Agricultural employment.*—Persons employed in agriculture are forbidden, while so engaged, to work other than in agricultural employment except when in the armed forces or when engaged temporarily for not over 60 days in any year on work that does not interfere with agricultural employment. However, the selective service officer may issue permits for changing to allowable employment outside of agriculture under the conditions already described for other workers. Employers are subject to the same restrictions regarding agricultural as regarding other labor.

*Technical personnel.*—The hiring and the lay-off of technical personnel are also subject to control. Without permission of the Minister of Labor, no person may enter into a contract for the services of a technical person, except with regard to part-time employment other than his principal means of livelihood. Employment arrangements must comply with the provisions of the regulations here reviewed. The Minister may request a technical person to take essential work other than that in which he is engaged, if such work would be more effective in the war effort. He is entitled to be reinstated in his earlier position, upon termination of the essential job, if he applies within 2 weeks thereafter, is physically and mentally fit to resume his former employment, and if it is "reasonably practicable to reinstate him." If the employer discharges the rehired employee within 6 months he must prove that he had reasonable cause.

*Science students.*—Universities are required to keep the Minister of Labor informed, to the extent the latter may require, on the status of science students, and are to be governed by the Minister's decisions regarding such students. A science student must accept such status as the Minister prescribes, including membership in the army reserve. Such facilities for training as the Minister of Labor may prescribe are to be provided by the Department of National Defense and the Department of Munitions and Supply. Every science graduate of a university who does not volunteer for service in the armed forces must accept employment of an essential character that the Minister may require and remain in the employment at the option of the Minister. Consent of the Minister must be obtained to interview science students for prospective employment, upon graduation.

#### Employment Controls

Any worker may be called to a local employment office by the selective service officer for an interview at a time that does not interfere

with his work, if any. If the person is unemployed, he may be required to apply at once for suitable employment; and if he has not been fully employed for more than 2 consecutive weeks, he must apply, within 7 days of the direction by the officer, for employment deemed suitable by the latter. Every person who receives such a direction must comply. In deciding on the suitability of employment the officer must take into account the person's physical condition, training, etc.

Financial assistance must be given if the person is required to change his place of residence.

Once employment is accepted under a direction, the employee may not quit, nor be laid off, for 6 months, without a written permit from the selective service officer.

#### PROVISIONS FOR TRANSFERRED WORKERS

When the Minister of Labor, after hearing interested persons, is of the opinion that an employee can contribute more effectively to the prosecution of the war in another employment, the Minister may require his employer to serve the 2-week termination notice. In such cases assignment to an alternate employment is the responsibility of the selective service officer.

*Supplementary allowances.*—Financial aid to persons who are directed to transfer may not exceed the necessary traveling expenses to the new place of work; necessary expenses of the dependents, if in the officer's opinion they should be moved; and an amount substantially equivalent to that which the employee would have earned had he been at work instead of traveling. The amounts so advanced may be required to be repaid, but the worker is deemed to have repaid \$5 for each week he remains in the employment to which he is assigned.

If the employee changes his residence by direction or request of the selective service officer and is separated from his dependents, a living allowance of not over \$5 a week may be granted at the discretion of the officer. Where the person takes pay below what he was receiving, a supplementary allowance of not over \$5 may be granted for each week the worker remains in the employment. A sum not to exceed \$15 may be advanced to defray living costs in the first week of the new employment; this must be repaid within 48 hours of receipt of the first normal wage or salary or within such period as the officer may allow.

*Reinstatement.*—A person directed to accept alternate employment is entitled, upon termination of that work, to reinstatement in his former position under the provisions of the Reinstatement in Civil Employment Act of 1942.

*Appeals.*—Appeals from refusals to grant, or cancelations of, permits, orders, etc., may be made to a court of referees by the person affected or by a trade-union. The court must be chosen as in the case of an appeal under the Unemployment Insurance Act, 1940. A case must be considered as soon as possible after receipt of the notice of appeal. The court's decisions are final.

#### Labor-Exit Permits

Persons who have attained the age of 16 years may not leave Canada to seek or enter into employment outside Canada except pursuant to a labor-exit permit issued by a selective service officer.

This requirement does not apply if the person is leaving to serve the Canadian Government abroad and for other specified reasons.

The exit permit may be issued for a limited or indefinite period, but for certain male British subjects it is contingent upon written authorization by the Chairman of the Mobilization Board. Permits are renewable and may be cancelled.

### *Administration*

The Minister of Labor is responsible for administering and enforcing the regulations. An officer in the Department of Labor, appointed by the Governor in Council, is called the Director of National Selective Service, and such associate directors are appointed as the Governor in Council deems to be necessary. Officers, called National Selective Service Officers, are appointed by the Minister of Labor, who designates the areas in which they are to serve. A National Selective Service Advisory Board, of which the Minister is chairman, advises him with reference to the utilization of manpower in the war effort. Membership consists of specified groups of persons serving on other wartime labor bodies.

As indicated in the description of the regulations, the Minister's powers are broad. He may prescribe the use of manpower, the manner of executing the regulations, and the persons or groups of persons to be covered. To enforce the regulations he may authorize selective service officers and inspectors to enter premises at reasonable times, to make inquiries, and to examine persons orally to the extent they see fit. A person guilty of an offense under the regulations is one who commits the offense, does or omits to do an act for the purpose of aiding any person to commit the offense, or counsels or procures any person to commit the offense. Fines or imprisonment, or both, may be the penalty for breach under the regulations.



## BRITISH WELFARE WORK OUTSIDE THE FACTORIES

IN June 1940 a welfare department was formed in the British Ministry of Labor and National Service to deal with accommodations, transport, feeding, shopping, care of children, recreation, and other problems of war workers. An account of the work of the department from August 1941 to August 1942<sup>1</sup> in handling these and other questions shows the wide range of services developed to meet the needs arising from the expansion of war industries and the necessary transfer of thousands of workers from their homes to the centers of war production.

### *Accommodations For Transferred Workers*

General arrangements for the transfer and reception of war workers include the opening of hostels or special reception centers in various towns and cities, and in some cases use of a "convoy system" by which groups of women are accompanied to their destination by officers of the Ministry.

<sup>1</sup> Welfare Outside the Factory and Seamen's Welfare in Port, August 1941 to August 1942. London Ministry of Labor and National Service, 1942. (Cmd. 6411.)



Special machinery which had been created to handle lodging and billeting was supplemented during the year under review by the organization of local advisory committees representing the local authority, regional offices of the Ministries of Health and of Labor and National Service, the Women's Voluntary Services, and employers and trade-unions. These committees deal with the various demands for accommodations, and the local authority usually makes a postal survey of the area, after which the women's services in some areas form a street-representative system. Under this system a local woman resident is responsible for a certain number of houses, keeps a record of the available accommodations in them, and is responsible for maintaining friendly relations between the transferred worker and the householder.

There have been special local campaigns, in addition to a general publicity campaign, to encourage householders to provide board and lodging for war workers as a work of national service. In certain areas where the need of housing accommodation is particularly acute, the provision of board and lodging is now regarded as vital war work for a married woman, and one who is prepared to board and lodge not less than two war workers is not required to do other work under the Registration for Employment Order.

Reception hostels, where workers can be taken until they can find suitable lodgings, had been established in 76 areas by the end of August 1942. These hostels vary in size, and in order to use them to capacity the larger ones are now run as both reception and residential hostels. Over 40 residential hostels have been built in towns, such as Coventry, where the available accommodations are very limited, or near factories in remote districts; most of these are managed by the National Service Hostels Corporation. The hostels generally have room for from 500 to 1,000 workers. They usually follow the same plan, with a large central building with canteens, lounges, recreation hall, etc., surrounded by sleeping blocks. Some of the hostels are for men, some for women, and some for both.

Workers living in hostels and workers living in lodgings usually have their morning and evening meals where they are living, with the midday meal taken in the factory canteen. In many of the small factories, however, it is not possible to provide a hot midday meal, and workers who cannot secure this meal either in the factory or in their homes often eat in a local British Restaurant. By the end of July 1942 over 1,500 of these restaurants had been opened and were serving nearly half a million meals each day.

### *Other Services for War Workers*

Shopping during the war has presented difficulties, particularly for married women who, in addition to their war work, have a household to look after. The problem could not be solved by one general measure for the whole country, but in some cases shopping hours have been changed or extended. Employers have also been asked to give their married workers time off for shopping, and shopping services have been created.

In case of sickness of transferred workers special allowances are paid. Workers who are entitled to a lodging allowance receive the special allowance in addition to any health-insurance benefit or work-

men's compensation to which they may be entitled. If such workers are not entitled to a lodging allowance, the special allowance is reduced by the amount of any insurance benefits they may receive. These allowances are payable, in general, for 3 weeks. If it is necessary to send a sick worker home his railway fare is paid, as well as that of a person to accompany him when he cannot go alone. All transferred workers are asked to register with a panel doctor at once upon arriving at a new town, and to continue or transfer their membership in friendly societies or similar organizations.

Women with young children have not been compelled to go into war work, but for those who have gone into industry, special measures have been taken to take care of their children in wartime nurseries. By the end of August 1942, there were in operation 826 nurseries with accommodations for about 34,000 children; 468 others were either being opened or planned, with space for about 21,000 children. In public elementary schools provision had also been made for the care of 100,000 children under 5 years whose mothers were working, and there were 63 nursery schools for children under 5. Over 3,000 registered daily guardians were taking care of about 4,000 children at the end of July 1942.

Traveling to and from work has presented many difficulties because of the blackout, the increase in the number of factories and the remote situation of many of them, shift working, and the shortage of civilian transport. Measures taken to meet these difficulties included the staggering of working hours, the early closing of shops to reduce nonessential travel at the peak periods, and the control of queues.

The provision of recreation and amusement facilities is of particular importance for workers transferred from home, and special financial and general assistance has been given by the Ministry to the Central Council of Recreative Physical Training. The Council has developed all forms of outdoor and indoor physical recreation for factory workers and has assisted in forming classes inside factories, sports clubs and leagues, etc., in addition to its "Fitness for Service" scheme. The formation of clubs, run by voluntary organization, by the employers, or by the workers, has been encouraged and given financial assistance by the Ministry. Special club facilities have been provided for transferred woman war workers in Birmingham, Manchester, and similar places. These clubs are rather more than recreational or social centers, as they usually provide bath, laundry, ironing, and sewing facilities, lounges, and reading and writing rooms.

Entertainment for war workers provided at public expense increased during the year, many thousands of concerts having been given at the factories, at the hostels, and in the towns where there are many billeted workers. Mobile film units have also been used to entertain workers in building and construction, who often have to work on remote sites. Military and Air Force bands have played for factory workers and at certain docks, and similar entertainment has been provided by the bands of some of the forces of the Allied Governments in Great Britain.

The Government announced in the spring of 1942 that while it was necessary to maintain the maximum output of munitions, it was also necessary, if the national effort was to be maintained, to allow workers to have moderate and well-planned holiday breaks. At least 1 week's vacation during the year was recommended, and it was suggested

that the vacations should be spread over the period between the first of April and the autumn. As it was necessary to reduce travel to the minimum, the Ministry of Labor and the Ministry of Health urged the local authorities to organize holiday-at-home attractions.

### *Seamen's Welfare*

Port welfare committees to look after the welfare of British, Allied, and foreign seamen in British ports and the crews of British ships in overseas ports have been formed under the authority of the Seamen's Welfare Board. The areas covered by the Seamen's Welfare officers have been extended to cover practically all the ports of Great Britain.

The provisions for merchant seamen include hostel accommodations, recreational facilities, and clubs, where in addition to recreation meals and drinks are served. Waiting and recreation rooms have also been provided for merchant seamen waiting assignment to a ship.

Health questions affecting merchant seamen are handled by the Ministry of War Transport with the assistance of a joint advisory committee made up of representatives of the Ministries of Labor, Health, and War Transport. The committee provides for the admission of seamen to hospitals and convalescent homes, and the establishment of clinics for seamen in ports. Seamen who become ill or are injured as a result of enemy action or through accident while in service are entitled to hospitalization under the Emergency Hospital Scheme organized by the Ministry of Health. In other cases of injury or illness, seamen are eligible, when away from home, for treatment in such hospitals, and the Government meets any part of the expense that they are unable to pay.

Provisions for the welfare of the seamen of other nations are similar to those provided for British seamen. The Allied Governments, the Government of India, and the British Colonial Office cooperate with the British ministries in the institution of welfare measures for seamen of the different countries in the British ports.



## NEW GERMAN LABOR-MOBILIZATION ORDER

ON THE basis of Germany's 1935 army law, by the terms of which every German, man or woman, may be required to perform service in wartime, a new decree was issued on January 13, 1943, and signed by Hitler, providing for a drastic new alignment for the supply of labor. Germany's efforts to increase the labor supply by recruitments in foreign countries have received much attention, and these efforts are being pushed with new vigor. Thus, it is reported, France is expected to furnish an additional 400,000 specialists by March 31 of this year. (The number of French specialists already in Germany is estimated at 150,000.) Other western European countries are under pressure to furnish comparable quotas, and Germany's eastern European satellites are reported to be sending fresh labor battalions, including some Jewish units. Recruitment in the territories occupied by Germany in eastern Europe is reported to be further intensified, with offers to the Poles and other nationals of increases in pay, privileges, and food rations. In addition to this, the workweek has been lengthened, with frequent Sunday work, and weekly totals of 65 and 70 hours of work quite usual. Thus in this critical period of the war, Germany appears to be neglecting no possibility of increased utilization of labor, no source of additional labor.

The new decree represents what is apparently the ultimate effort to mobilize the remaining sources of labor within Germany proper. No estimates of the number of persons concerned are yet available, but German circles, it is reported, expect several hundred thousand workers to be sent to armament plants within a short time, with the full effect of the mobilization becoming apparent only late in the second half of 1943. The new workers will be obtained mainly from among the aged, the young, and those hitherto considered unfit for labor. The new group will range in age down to 16 for males and 17 for females, and up to 68 for males and 45 for females, and will include cripples and tubercular persons. The efficiency of such a group will naturally be very limited, and the new contingents are to be used only to fill gaps in relatively unimportant work caused by transfers of more efficient workmen to armament jobs.

By far the greater part of the new group is expected to be made up of women. Unmarried or childless women will be the first to be called. Female workers normally employed in stores, offices, cafes, beauty parlors, etc., will take the place of men in industry and in war administration. The number of women now engaged on railways is said to be 250,000, and autobusses are said currently to employ 25,000 woman conductors, while the postal service is reported to have engaged 200,000 women as letter carriers during 1942. The female contingent in these three fields is now to be further increased. The importation into Germany of several hundred thousand Russian female laborers is said to permit the release of almost an equivalent number of German women for war work.

The chief importance of the new decree lies, perhaps, in its sensational departure from the official German attitude toward woman workers, the fiction that work by women was purely voluntary having been stoutly maintained heretofore by the official propaganda. The new development reverses one of the main principles of National

Socialism, and it may be thought that only extreme necessity can have led to the taking of this step, particularly since its repercussion in terms of morale among sons and husbands at the front may be expected to be grave.

Minister of National Economy Landfried and Gauleiter Sauckel are to administer the details of the mobilization. In furtherance of the new program, Minister Landfried issued three decrees providing for the closing, effective March 15, 1943, of hotel, restaurant, cafe, and night-club establishments, commercial enterprises, and artisan and small-scale industrial plants, deemed unnecessary to the war effort, the released personnel to be placed at the disposal of Sauckel for reassignment.

The scope of this feature of the mobilization is made clear by the fact that some 12,000 periodicals will now cease publication, that the secretariats of professional, social, and even charitable organizations will be closed, and that businesses with less than 5 employees (including restaurants, shoemakers, electrical repair shops, retail stores, brokers, and luxury enterprises of all kinds) will be shut down. Recent statistics showed the existence of 1,535,824 of these small-scale enterprises, employing 5,277,151 workers. Further, the manufacture of many articles now deemed unnecessary—e. g., musical instruments—will be suppressed. In some degree this measure recognizes an already existing situation; however, it is thought that the greater part of the new labor will be from the enterprises affected by the decree.

Another inevitable byproduct of these new measures would seem to be a further notable displacement of the population, with separation of families becoming still more pronounced.

# Employment and Labor Conditions

## INDUSTRIAL DISTRIBUTION OF WORKERS IN BRAZIL, 1940<sup>1</sup>

AN OFFICIAL industrial survey made by the Statistical Service of Welfare and Labor of Brazil indicates that in 1940 there were 825,425 persons engaged in industrial work in that country. The distribution of these workers, by industries, is shown in the following table:

*Distribution of Industrial Population of Brazil in 1940, by Industries*

Industry	Number of workers	Per-cent	Industry	Number of workers	Per-cent
All industries.....	825,425	100.0	Leather.....	12,920	1.6
Textiles.....	195,702	23.7	Food processing.....	12,285	1.5
Food products.....	107,685	13.0	Instruments, various.....	11,466	1.4
Construction.....	106,006	12.8	Metal utensils.....	10,557	1.3
Clothing.....	74,509	9.0	Paper.....	10,465	1.3
Wood and cork.....	59,808	7.2	Extraction for construction.....	8,423	1.0
Nonmetallic minerals.....	44,535	5.4	Cleaning enterprises.....	6,487	.8
Smelting, etc., of metals.....	32,160	3.9	Oils and greases.....	5,660	.7
Tobacco.....	28,182	3.4	Rubber.....	4,796	.6
Machinery manufacture.....	27,069	3.3	Minerals, extraction of.....	3,357	.4
Chemicals.....	25,609	3.1	Manufactures, various.....	1,287	.2
Graphic arts.....	21,769	2.6	Fuel derivatives.....	570	.1
Beverages.....	13,795	1.7	Electricity, gas, and water.....	323	( <sup>1</sup> )

<sup>1</sup> Less than a tenth of 1 percent.

## ABSENTEEISM IN CANADIAN WAR INDUSTRIES

ON THE average, 8.1 percent of all employees were absent in 35 Canadian war plants each day during September 1942, according to a survey made by the Department of Munitions and Supply of Canada.<sup>2</sup> The rate of absence declined to 6.4 percent in October but rose to 6.9 percent in November. To obtain an estimate of the amount of absenteeism, firms representative of the varied war industries and of the different parts of Canada were selected. The number of employees per company ranged from over 12,000 to under 100, and averaged about 2,500. In all, the plants employed 86,224 workers; and on the average, 7,010 were absent daily in September.

A partial explanation of the higher incidence of absence in September than in October and November is that September is a popular vacation month. Since the figures represent absence from all causes, a decline in the rate would be expected as the vacation season drew to

<sup>1</sup> Data are from Brazil, Boletim do Ministério do Trabalho, Indústria, e Comércio, Rio de Janeiro, August 1942, p. 322.

<sup>2</sup> Data are from Canadian Labor Gazette, January 1943, pp. 10-15.



a close. Some individual firms reported a much higher rate of absence in July and August than in September. Variations in absenteeism were substantial from plant to plant. For example, a firm employing over 5,000 workers had an 18.7-percent absentee rate, whereas one with approximately the same number of employees had a 2.8-percent rate. Different methods of record keeping may account, in part, for the variation. Long-established firms tended to have less absenteeism than newer ones. Plants employing a large number of women showed a high percentage of absences. In one firm, the rate was 24 percent for women and 8 percent for male workers.

### *Causes of Absence*

No analysis was made to show the causes of absence, and the report here reviewed states: "In fact it is difficult to make any estimate of the amount of absence in Canadian war industries due to legitimate reasons, such as illness and vacations, and the amount due to employees simply staying away from work for their personal reasons." Data obtained from various sources indicated that, although their relative importance could not be established, the major causes of absence were (1) illness and accident, (2) industrial fatigue, (3) personal reasons, and (4) vacations and leaves of absence.

*Accidents and illness.*—It was once believed that accidents and illness were uncontrollable but absences for these causes are now being found susceptible to control. A United States study—by the National Association of Manufacturers—was cited to prove this point. The study covered 2,064 industrial firms in which sickness-prevention plans had on the average reduced occupational disease 62.8 percent, accident frequency 44.9 percent, absenteeism 29.7 percent, compensation cost 28.8 percent, and labor turn-over 27.3 percent. It was concluded that a sickness-prevention program more than pays for itself, as the average saving in a 500-employee plant was \$5,611 per year. Beneficial results of the same kind have been attained in Canadian plants. One factory employing 200 men reduced lost time by almost 70 percent after the inauguration of a health-service program. Of two companies employing approximately the same number of men, the one without a health program had five times as many compensable accidents as the company using preventive measures.

A health-service program may be maintained by employing full- or part-time doctors and nurses, a safety engineer, and a plan for improving working conditions so as to avoid unnecessary strain and fatigue. Among the factors mentioned which may help to reduce absenteeism are adequate lighting properly distributed, and free from glare; good ventilation, with a system for removal of dust, vapors, fumes, and gases; adjustment of the hours of work to control undue fatigue; rest periods; control of unnecessary noise; and provision for nutritious lunches.

*Industrial fatigue.*—Absence owing to fatigue was regarded as being on the borderline between absence caused by illness and that caused by personal reasons. The report quoted British experience to show that actual fatigue, as the term was used in the last war, has occurred relatively infrequently in this war, since long hours (its chief cause) are less common. Mental as well as physical tiredness contribute to fatigue. Related factors are the problems of hours of labor, monoto-

nous tasks, rest periods, lighting, heating, ventilation, excessive noise, overcrowding, and "those fundamentals of comfort under which the working day is spent." Symptoms so frequently accompanying tuberculosis—such as loss of appetite, loss of weight, tiredness, inability to sleep, etc.—may occur without any organic disease but obviously make the individual more susceptible to illness. Another cause of fatigue is inadequate nutrition.

After the battle of Dunkirk, the relationship of long hours and absenteeism was shown in British industry. At first production spurted, even under a 70- or 75-hour week of work. By July 25, 1940, the need for reducing working time was officially recognized and a workweek of 55 or 56 hours was recommended as a goal to be attained gradually. In the United States, eight Government agencies have recommended an 8-hour day and 48-hour week, with 1 day of rest in 7.

*Absence owing to personal reasons.*—There seems to be some relationship between high earnings and absences. Families with a "local work tradition" are likely to have higher standards of work than new workers. Thus, new plants with a large proportion of workers unaccustomed to industry seem to have more trouble with absences than do established companies. Part of the difficulty is lack of experienced foremen and work supervisors. Some workers have reacted unfavorably to Canada's income tax and do not wish to be placed in a higher income bracket which entails higher taxes. Maladjusted workers are apt to be absent, as are those who have transportation difficulties. Weather is also a factor in absences.

One company reported 40 percent less absence, on the average, on pay days than other days. Absenteeism was worst on days following pay days and improved a little each day until the next pay day. The same company reported that over 60 percent of its absences were caused by "real, imaginary and fictitious" illness. An official British report states that "Perhaps the most significant cause of all is the lack, due often to ignorance, of real interest in the job and of conviction of its importance and urgency."

Maintenance of accurate and fair records of absence is stressed in most plans for combating absenteeism. If accurate records are kept and employees know that absences are investigated, absence can usually be reduced. However, the problem is complex. Where women are employed, day nurseries and time off for shopping and household duties are helpful, as are also factory canteens, barber shops, etc., for men. Boredom and discouragement must be avoided, and an interest in and enthusiasm for the job should be created, to prevent such a state of mind. Well-planned rest periods may also eliminate boredom. Direct action to reduce absenteeism may take the form of attendance bonuses or badges. One firm gives extra days off for good attendance.

### *Recommendations*

The following general principles were listed as important in the control of absenteeism:

(1) Improvement of labor relations between employer and employee in particular plants.

(2) Establishment of joint labor-management production committees.

(3) Inauguration of a system of recording absences and their causes.

(4) Establishment of safety and health programs.

(5) Plant campaigns, intelligently conducted, to publicize the importance of individual responsibility in unnecessary absences in terms of lost production vital to the fighting front.



## WORKING CONDITIONS IN GREAT BRITAIN AND NORTHERN IRELAND IN 1942

A REVIEW of unemployment, wages, cost of living, and industrial disputes in Great Britain and Northern Ireland during 1942, has recently been published,<sup>1</sup> which gives the number of unemployed registered as 107,300 in December 1942, compared with 186,100 in December 1941. The reduction in unemployment which has been in progress since the early war period continued throughout 1942. Rates of wages rose, but at a slower pace than in the previous 2 years. Cost-of-living indexes fluctuated from 199 to 201, based on July 1914 as 100. The number of strikes was 1,281, as compared with 1,251 in 1941; workers involved in strikes in the 2 years numbered 455,000 and 361,000, respectively, and the number of man-days of idleness increased to 1,500,000 in 1942 from 1,100,000 in 1941.

### *Extent of Unemployment*

Exclusive of persons classified as unsuitable for ordinary employment, the wholly unemployed in Great Britain and Northern Ireland declined from 165,922 in January 1942 to 99,392 in December. Persons temporarily out of work and unemployed casual workers declined from 29,172 to 7,882 during the same period. For the year the average of wholly unemployed was 125,311 (excluding 26,002 who were not suitable for ordinary employment); the temporarily unemployed averaged 8,615; and unemployed casual workers averaged 5,346. Unemployment in these three classes is shown in table 1 for the years 1928 to 1942, inclusive. Prior to 1942 those unsuitable for ordinary employment were not segregated from the wholly unemployed, and to this extent the figures representing experience in previous years are not comparable with those for the latest year.

TABLE 1.—Average Number of Unemployed Registered in Great Britain and Northern Ireland, 1928-42

Year	Wholly unemployed	Temporarily out of work	Unemployed casual workers	Year	Wholly unemployed	Temporarily out of work	Unemployed casual workers
1928.....	869,573	309,359	75,972	1936.....	1,491,051	251,568	79,081
1929.....	900,553	268,595	79,440	1937.....	1,284,123	205,369	67,509
1930.....	1,347,840	527,720	98,941	1938.....	1,433,248	380,484	67,625
1931.....	1,994,471	587,719	115,678	1939.....	1,308,212	220,990	60,599
1932.....	2,136,052	574,315	102,675	1940.....	829,458	165,962	39,252
1933.....	2,037,517	456,743	94,098	1941.....	314,507	62,124	14,890
1934.....	1,763,911	369,002	88,150	1942.....	<sup>1</sup> 125,311	8,615	5,346
1935.....	1,706,783	312,757	86,581				

<sup>1</sup> This figure excludes persons who were classified as unsuitable for ordinary employment. The average number of such persons who were registered as wholly unemployed during 1942 was 26,002.

<sup>2</sup> Ministry of Labor Gazette (London), January 1943.



### *Rates of Pay*

Regular monthly reports are compiled to show the changes in weekly full-time rates of pay of several million workers. The statistics do not cover wage-rate changes for agricultural labor, Government employees, domestic servants, shop assistants, and clerks, and do not take into account variations in actual earnings resulting from such factors as the state of employment or weekly hours. Changes are mainly those negotiated by organizations of employers and workers, and do not, in most cases, include adjustments made by individual employers for unorganized workers.

During 1942, wage-rate increases resulted in an aggregate net increase of over £1,600,000 in the weekly full-time rates of wages of over 6½ million workers. In the preceding year the increases amounted to £2,000,000 for approximately 8 million workers in the same industries. Variations in the wage-rate advances were wide as between different industries, but it is estimated that, at the end of 1942, the average level of full-time weekly rates in all the industries covered—including agriculture—was about 5 percent higher than a year earlier and 32 or 33 percent higher than at the beginning of the war. These increases relate to rates, of course, and do not take into account the marked rise in average earnings resulting from other factors, such as fuller employment, overtime work, and the extension of payment by results.

One of the principal wage increases in 1942 was in coal mining, in which industry there was a flat-rate increase, beginning on July 1, of 2s. 6d. a shift, for underground workers aged 18 years and over and surface workers aged 21 years and over, with smaller additions for younger workers. In the iron and steel industry, flat-rate additions to wages were authorized in most districts in November, amounting in most cases to 1s. a shift for men, 1s. 6d. for youths, and 6d. for boys. In the engineering industry, the national bonus payable to women of 18 years and over on time and piece work, other than those whose wages are related to the wages of men, was raised by 4s. a week, and in addition, 3s. a week was paid as a special bonus to those women aged 21 years and over, on time work. Men employed in workshops of the main-line railways received an increase of 4s. a week in the war wage bonus, and wage increases of from 1s. 6d. to 4s. 6d. a week were granted, the lower-paid men receiving the larger advance in rates. Upward revisions were made in many other industries as well.

Among the more important industries in which rates of pay did not change were paint, color, and varnish manufacture; soap and candle making (males); engineering (most classes of males); shipbuilding and ship repairing; and construction engineering.

### *Cost of Living*

Retail prices of the main items in working-class expenditures varied little in 1942. Based on July, 1914 as 100, the index of cost of living was 200 on January 1, 1942, and 199 on January 1, 1943, showing a rise over September 1939 amounting to 28 percent. Stability of the index in 1942 was attained through Government subsidy of essential goods and services and control of retail prices, under a policy announced by the Chancellor of the Exchequer in his budget statements of 1941 and 1942. Price rises in 1942 were offset by decreases in prices of other

commodities, particularly those for "utility" clothing, after the purchase tax on such clothing was remitted beginning in August. Indexes of the various groups of items making up the cost of living are shown in table 2, for September 1, 1939, and by months from January 1, 1942, to January 1, 1943, inclusive.

TABLE 2.—*Index Numbers of Cost of Living (British), September 1, 1939, and by Months, January 1, 1942, to January 1, 1943, Inclusive*

[July 1914=100]

Date	All items	Food	Rent (including taxes)	Clothing	Fuel and light	Other items
September 1..... <i>1939</i>	155	138	162	208	182	179
January 1..... <i>1942</i>	200	163	164	400	230	233
January 31.....	200	163	164	400-405	230	234
February 28.....	200	162	164	405	230	234
April 1.....	199	160	164	405	232	235
May 1.....	200	160	164	405	232	263
June 1.....	199	159	164	405	232	263
July 1.....	200	160	164	405	232	264
August 1.....	201	160	164	405	240	264
September 1.....	200	160	164	395-400	240	265
October 1.....	200	162	164	390	241	266
October 31.....	200	163	164	385	241	267
December 1.....	200	164	164	375-380	241	268
January 1..... <i>1943</i>	199	164	164	370	244	268

### Industrial Disputes

The great majority of the 1,281 industrial disputes in 1942 involved small numbers of workers. About two-fifths of the stoppages and over one-half of the 1,500,000 days of idleness were in the coal-mining industry, and were caused chiefly by wage questions. After a general wage increase was granted to coal miners there was a marked reduction in coal-mine strikes in the later months of the year. The number of strikes, workers involved, and man-days idle are shown in table 3, by industry, for 1941 and 1942.

Man-days of idleness owing to strikes in 1942 totaled more than in any one of the four preceding years, but were equivalent to only a small fraction of 1 working day per person when averaged over the entire wage-earning population. Numbers of strikes, workers involved, and man-days of idleness are shown in table 4, for the years 1928 to 1942, inclusive.

TABLE 3.—Strike Activity, in Great Britain and Northern Ireland, by Industry, 1941 and 1942

Industry group	1942			1941		
	Number of strikes starting in year	Workers involved <sup>1</sup>	Man-days of idleness	Number of strikes starting in year	Workers involved <sup>1</sup>	Man-days of idleness
All industries.....	1, 281	1 454, 800	1, 527, 000	1, 251	1 361, 500	1, 079, 000
Coal mining.....	504	1 249, 900	837, 000	470	1 154, 200	335, 000
Other mining and quarrying.....	29	4, 600	22, 000	12	800	3, 000
Brick, pottery, glass, chemicals, etc.....	39	5, 500	10, 000	35	4, 800	10, 000
Engineering.....	233	81, 700	285, 000	180	97, 000	318, 000
Shipbuilding.....	111	42, 000	162, 000	147	27, 300	110, 000
Iron and steel and other metal.....	132	18, 100	51, 000	145	29, 600	127, 000
Textile.....	47	9, 600	26, 000	42	7, 300	37, 000
Clothing.....	13	5, 100	19, 000	20	5, 600	16, 000
Food, drink, and tobacco.....	12	2, 000	4, 000	13	700	2, 000
Woodworking, furniture, etc.....	8	1, 700	6, 000	9	900	7, 000
Building, public works contracting, etc.....	66	13, 400	29, 000	77	10, 500	36, 000
Transport.....	51	15, 900	36, 000	58	15, 800	54, 000
Commerce, distribution, and finance.....	8	2, 000	3, 000	6	2, 400	4, 000
All other industries.....	28	3, 300	7, 000	37	4, 600	20, 000

<sup>1</sup> Workpeople are counted in the totals for each year as many times as they were involved in a dispute during the year. The resulting duplication during the years 1941 and 1942 was generally slight, except in the coal-mining industry, in which the net number of workpeople involved was approximately 152,000 in 1942 and 79,000 in 1941. The net number of workpeople involved, in all industries, was approximately 338,000 in 1942, and 269,000 in 1941.

TABLE 4.—Strike Activity, Great Britain and Northern Ireland, by Years, 1928-1942

Year	Number of strikes starting in year	Workers involved <sup>1</sup>			Number of man-days of idleness
		Directly	Indirectly	Total	
1928.....	302	80, 000	44, 000	124, 000	1, 390, 000
1929.....	431	493, 000	40, 000	533, 000	8, 290, 000
1930.....	422	286, 000	21, 000	307, 000	4, 400, 000
1931.....	420	424, 000	66, 000	490, 000	6, 980, 000
1932.....	389	337, 000	42, 000	379, 000	6, 490, 000
1933.....	357	114, 000	22, 000	136, 000	1, 070, 000
1934.....	471	109, 000	25, 000	134, 000	960, 000
1935.....	553	230, 000	41, 000	271, 000	1, 960, 000
1936.....	818	241, 000	75, 000	316, 000	1, 830, 000
1937.....	1, 129	388, 000	209, 000	597, 000	3, 410, 000
1938.....	875	211, 000	63, 000	274, 000	1, 330, 000
1939.....	940	246, 000	91, 000	337, 000	1, 360, 000
1940.....	922	225, 000	74, 000	299, 000	940, 000
1941.....	1, 251	297, 000	63, 000	360, 000	1, 080, 000
1942.....	1, 281	349, 000	106, 000	455, 000	1, 530, 000

<sup>1</sup> For the purpose of these totals, workpeople are counted in the total for each year as many times as they were involved in a dispute during that year. The resulting duplication is mainly confined to the coal-mining industry. The more considerable duplications in the totals for all industries have been as follows: 1931, 57,000; 1932, 70,000; 1935, 59,000; 1936, 66,000; 1937, 181,000; 1938, 66,000; 1939, 90,000; 1940, 87,000; 1941, 93,000; 1942, 117,000.



## Social Insurance

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### SOCIAL INSURANCE FOR JOURNALISTS IN CHILE, 1941<sup>1</sup>

ON December 31, 1941, a total of 45 journalistic enterprises in Chile had come under the provisions of the National [Social-Insurance] Fund of Public Employees and Journalists (*Caja Nacional de Empleados Públicos y Periodistas*). The membership of the Journalists' Section of the Fund consisted of 3,771 active and 270 retired persons. Retirement pensions in force in 1941 totaled 269, and averaged 734.84 pesos<sup>2</sup> per month each. The 452 survivors (widows, children, mothers, sisters) of 182 deceased members received an average monthly cash pension of 56.54 pesos per beneficiary. During 1941, the Journalists' Section of the Fund had a total income of 9,362,250.01 pesos and expenditures amounting to 4,471,355.52 pesos, indicating an accumulation of funds during the year of 4,890,894.49 pesos.

The social-insurance scheme was established by legislation enacted in 1925, and the Journalists' Section was defined as applying to those industrial establishments which, in their own shops and for their own account, issue permanently and regularly a newspaper or periodical at least every month and employ at least 10 persons, counting both salaried and wage-earning employees. Proprietors of journalistic enterprises who are, at the same time, salaried employees, because they perform permanent functions in the establishment, may become members of the Fund, through authorization of the Council of the Fund. On December 31, 1941, the 45 such journalistic enterprises were distributed as follows: 15 in Santiago, 13 in the northern zone and 12 in the southern zone of the country, and 5 in Valparaiso.

#### *Provisions of System*

The following sources of funds were authorized in the legislation: Contributions by employees amounting to 5 percent of earnings; contributions by employers amounting to 5 percent of pay roll and 10 percent of their net annual profits; half the first month's pay of new employees; the amount of the pay increase in the first month an employee is in a position with higher remuneration; 10 percent of the retirement pensions; 5 percent of the amount of insurance benefits, discounted at the time of payment; unclaimed benefits; and the proceeds of certain specified fines and taxes.

*Benefits.*—The benefits granted to members of the Journalists' Section and to their beneficiaries are in general the same as provided

<sup>1</sup> Data are from Operaciones de la Sección Periodistas de la Caja Nacional de Empleados Públicos y Periodistas durante los años 1939-1940 y 1941 (in *Previsión Social*, Santiago, July-September 1942); Principales disposiciones vigentes sobre la Caja Nacional de Empleados Públicos y Periodistas, Santiago, 1937; and report of Sidney N. Milliken, United States Embassy, Santiago.

<sup>2</sup> Average exchange rate of Chilean pesos, 1941=5.2 cents.

for public employees. They include retirement and survivors' pensions, life insurance and death benefits, and medical service. The fund also operates a mortgage- and personal-loan service.

In order to have the right to retirement benefit, an employee must have completed at least 10 years of service in a journalistic enterprise. Persons entitled to voluntary retirement include those with 30 or more years of service, persons who become unable to continue their work because of physical or mental reasons, and persons 55 years of age with more than 10 years' service. The amount of pension is computed by multiplying the number of years of service by one-thirtieth of the average pay for the last 2 years. Survivors' benefits amount to 23 percent of the pay of the last employment of the deceased employee for the first 10 years of service, plus 1 percent for each additional year he has paid contributions into the Journalists' Section of the Fund.

For the payment of life insurance there is set aside annually 40 percent of the 5-percent contribution on employees' earnings and the 5 percent of pay roll contributed by the employers.

### Statistics of Operation

The number of members of each class in 1941 is shown in the accompanying statement:

	Number
Total members.....	4, 041
Active members.....	3, 771
Compulsory.....	3, 716
Voluntary.....	55
Retired members.....	270

Table 1 shows the total monthly amounts paid in 1941 for the various types of benefit, and the average amount per beneficiary.

TABLE 1.—*Total and Average Monthly Benefits Paid in 1941, Under Social Insurance for Journalists in Chile*<sup>1</sup>

Type of benefit	Number of beneficiaries	Benefits paid per month in 1941	
		Total amount	Average per beneficiary
		<i>Pesos</i> <sup>2</sup>	<i>Pesos</i> <sup>2</sup>
Superannuation based on years of service.....	1	188. 88	188. 88
Voluntary retirement.....	75	65, 814. 89	877. 53
Disability.....	190	129, 789. 93	683. 10
Special laws.....	3	1, 878. 75	626. 25
Total or average.....	269	197, 672. 45	734. 84
Survivors' annuities.....	452	25, 558. 32	56. 54
Funeral expenses.....	17	12, 542. 61	749. 56
Life insurance paid on death of insured.....	308	4, 136, 961. 50	13, 431. 69

<sup>1</sup> Data are from Previsión Social (Santiago), July-September 1942.

<sup>2</sup> Average exchange rate of Chilean peso, 1941=5.2 cents.

In table 2, are given statistics of receipts and expenditures of the Journalists' Section in 1941. The data indicate that receipts for 1941 were equivalent to 22.59 percent of the members' earnings for the year.

TABLE 2.—Receipts and Expenditures Under Social Insurance for Journalists in Chile, 1941<sup>1</sup>

Item	Amount	Percent of total	Percent of all pay of employees
<i>Pesos<sup>2</sup></i>			
Total receipts.....	9,362,250.01	100.0	23.0
From employees.....	2,996,336.18	32.0	7.2
Five percent of pay.....	2,071,811.28	22.1	5.0
Half of first month's pay.....	182,439.10	2.0	.4
Pay increase, first month.....	420,924.98	4.5	1.0
Other contributions.....	321,160.82	3.4	.8
From employers.....	2,050,969.49	21.9	4.9
Interest on investments.....	2,398,124.27	25.6	5.8
From mutual associations.....	1,673,459.41	17.9	4.0
Other receipts.....	243,360.66	2.6	.6
Total expenditures.....	4,471,355.52	100.0	10.8
Expenses.....	817,237.33	18.3	2.0
Administrative.....	769,967.52	17.2	1.9
Investments.....	47,359.81	1.1	.1
Benefits.....	3,613,277.70	80.8	8.7
Medical service.....	186,395.65	4.2	.4
Death benefits.....	19,993.72	.4	.1
Life insurance, 1940.....	476,154.46	10.6	1.2
Retirement benefits.....	2,362,775.38	52.8	5.7
Survivors' benefits.....	334,963.94	7.5	.8
Preventive medicine.....	232,994.55	5.2	.6
Repayment of contributions.....	40,750.49	.9	.1
Penalties.....			

<sup>1</sup> Data are from Previsión Social (Santiago), July–September 1942.<sup>2</sup> Average exchange rate of Chilean peso=5.2 cents.

From the statistics of membership and from the figures in table 2, it is possible to compute roughly the average salary of members of the Journalists' Section. It appears that on the basis of these computations journalists had average yearly earnings amounting to 8,972 pesos (\$467) in 1940 and 10,988 pesos (\$571) in 1941.



## WORKMEN'S COMPENSATION LAW OF EGYPT, 1942

COMPENSATION for industrial accidents in Egypt was provided by a law of September 10, 1942, effective December 10, 1942.<sup>1</sup> The law does not cover workmen employed by the Government, but contractors working for the Government are required to insure their workmen.

Employers are responsible for the full amount of the insurance premiums, but the Minister of Social Affairs may exempt employers of fewer than 100 workmen from insuring workers in their employ if all necessary safety measures are taken and the employer deposits in an authorized bank a sum, to be fixed by the Minister of Social Affairs, of not less than 500 nor more than 5,000 Egyptian pounds. This sum will serve as a guaranty that the employer will pay the specified compensation in case of an accident. The law provides that groups of 10 or more employers subject to the provisions of the law may form cooperative insurance societies under the terms of regulations to be issued later. A Government insurance fund was to be created which will replace all insurance organizations formerly dealing with industrial accidents.

<sup>1</sup> Report from George Lewis Jones, United States vice consul at Cairo.



## EXTENSION OF COVERAGE OF BRITISH UNEMPLOYMENT INSURANCE

PROVISION was made for the inclusion of temporary officers in the armed forces and of certain other persons by the Unemployment Insurance (Emergency Powers) (Amendment) (No. 5) Regulations, 1942, issued by the Minister of Labor and National Service on December 15, 1942.<sup>1</sup> The additional classes include (a) officers of the naval, military, and air forces, including auxiliary services, but excluding officers of the regular military, naval, and air services; (b) members of certain additional auxiliary services; (c) members of the Home Guard and the Ulster Home Guard; (d) persons insured under the unemployment-insurance schemes of Great Britain and Northern Ireland who have been prevented by reason of the present war from returning to the United Kingdom; and (e) members of certain corps of civilian workers enrolled overseas who may be discharged in the United Kingdom. These classes will be added to the list of persons who according to a section of the Unemployment Insurance Act, 1935 (as amended), are entitled, under certain conditions, to receive on discharge a free credit of one contribution for each week of service, such contributions to be available for the purpose of claiming benefit.

Formerly, officers (other than regular officers) were insured only for the first 4 months' service and then only if they had been insured in civil life. A member of the Home Guard will be credited with contributions for any period of service of not less than 7 consecutive days in which he was mustered for the purpose of resisting an actual or apprehended invasion, if he possesses a current unemployment book. The latter provision is designed to insure credit to normally insured persons who would suffer a loss of contributions when called away from their usual occupations.

Merchant seamen who are insured while on board but who hitherto had ceased to be insured if the vessel were sunk or captured or they were interned abroad, are now credited with contributions for any such period of internment or imprisonment. Other insured persons who have been prevented from returning to the United Kingdom by the war will be credited with contributions if they had been employed in insurable employment within 2 years of the date on which they were interned or otherwise prevented from returning.

Nationals of other countries employed on war work in Great Britain under contracts made in their country of origin, which provide for their repatriation on the termination of their employment, were formerly excluded from insurance under the Unemployment Insurance Acts, but under the new regulations, in the event of any such person not being repatriated, he will be given a credit of one contribution for each week of service.

The credit of contributions on discharge for all persons except the Home Guard will apply as regards service since September 3, 1939, but claims for benefits can be made only during the operation of the regulations, that is, after December 15, 1942.

<sup>1</sup> Great Britain, Ministry of Labor Gazette (London), January 1943

# Employed Youth

## STANDARDS FOR YOUNG WAR WORKERS<sup>1</sup>

WITH the great influx of boys and girls into wartime industry, the Children's Bureau of the Department of Labor is issuing advisory standards for the employment of young workers. These standards point out the hazards of various occupations in which young people are likely to be employed and list kinds of work that are relatively safe or unsafe for boys and girls under 18 years of age. The purpose is to protect inexperienced workers from injury and to direct their employment into places where their skills may be developed and fully utilized.

The advisory standards are published in leaflet form under the general title "Which Jobs for Young Workers?"<sup>2</sup> Those issued to date are:

- No. 1—Employment of Young Workers in War Industries. (An introduction to the series.)
- No. 2—Advisory Standards for Shipbuilding.
- No. 3—Advisory Standards for Lead and Lead-Using Industries.
- No. 4—Advisory Standards for Employment Involving Exposure to Carbon Disulfide.
- No. 5—Advisory Standards for Employment Involving Exposure to Chlorinated Solvents.<sup>3</sup>

Others now in preparation will cover welding occupations and the operation of metal-working machines. Additional leaflets will be issued from time to time dealing with other occupations or industries.

The advisory-standards program is an emergency measure designed to provide a quick and flexible medium for the guidance of employers in placing young workers in jobs where their health and welfare will be safeguarded—an objective important both for efficient production and for preservation of future manpower. The effectiveness of the leaflets depends upon getting them into the hands of people interested in safety and employment problems, and the Children's Bureau is making every effort to do this. While these standards are advisory only and do not carry any legal compulsion, their widespread acceptance by the industries for which they have been issued shows definitely that management wants to protect young workers from injury and welcomes suggestions as to how this may be done.

Protecting young workers under 18 against employment in especially hazardous jobs is not new. The child-labor provisions of the Fair Labor Standards Act provide that no minor between 16 and 18

<sup>1</sup> Prepared by the Industrial Division of the Children's Bureau.

<sup>2</sup> Copies of the leaflets may be obtained, free of charge, from the Children's Bureau, U. S. Department of Labor, Washington, D. C.

<sup>3</sup> As leaflet No. 5 was published since this article was prepared, no discussion is included. The leaflet, however, is available for distribution.

years of age shall be employed in occupations determined by the Chief of the Children's Bureau to be particularly hazardous for young workers. Under these provisions, six hazardous-occupations orders have been issued, which have the same effect as law and carry a penalty for violation. These cover (1) all occupations in explosives plants, except that in small-arms ammunition factories certain specified occupations only are covered; (2) motor-vehicle drivers and helpers; (3) all occupations in coal mining with the exception of specified surface occupations; (4) all occupations in logging and sawmilling with certain specified exceptions; (5) operation of woodworking machines and certain types of off-bearing; and (6) occupations involving exposure to radioactive substances.

The legal procedure for declaring an occupation to be particularly hazardous under the act does not lend itself to the quick action necessitated by the war. For this reason, the advisory-standards method has been developed, to meet the immediate need to safeguard young workers in occupations or industries not covered by mandatory hazardous-occupations orders.

As in the case of mandatory orders, the new advisory standards are prepared with the advice of employers, employees, and organizations interested in safety and are based solely on the degree of hazard of the occupations covered. Compliance with the standards is expected to assist in lowering the high accident rate to young employees, who couple inexperience with the natural carelessness and impulsiveness of the adolescent.

The Children's Bureau provides a consultation service for employers who wish additional details on advisory standards and mandatory orders. Summaries of the advisory standards for shipbuilding, lead, and carbon disulfide follow.

### *Shipbuilding Industry*

In general, young workers under 18 employed in shipyards should be assigned to work as apprentices, mechanic learners, helpers, or trainees, and a definite plan for their training should be followed. Training should include especially careful supervision, since young and inexperienced workers are in greater need of supervision and direction than more experienced workers. Safety instruction should also be an important part of the supervision and training of all new workers.

The following facts should be borne in mind in making plans for employment of workers 16 and 17 years of age:

(a) Work on the ways is the most hazardous of all shipbuilding work, much more hazardous than similar work done on the shore or in the shops.

(b) Fitting-out work on board ship is more hazardous than work in the fitting-out shops.

(c) Repair work in general is more hazardous than new construction.

The leaflet lists kinds of work involving comparatively little accident risk, to which workers 16 and 17 years of age should be limited during the first 6 months or year of their employment, as well as jobs in which, because of their specially hazardous nature, workers under 18 years of age should not be employed at any time.



### *Lead Industries*

In the standard for lead and lead-using industries, it is pointed out that there is a considerable evolution of dust in some of the workrooms of plants producing lead salts or oxides. Certain occupations in these establishments, such as the milling of white lead after it is incorporated in oil, are not in themselves accompanied by the evolution of lead dust or fume, but they may involve exposure to lead dust arising in other departments. There is, therefore, a potential hazard in all production jobs, and a minimum age of 18 should be observed in such plants except for work in offices which are fully segregated and free from the possibility of contamination with appreciable concentrations of lead dust.

Other occupations for which workers under 18 years of age should not be employed in lead or lead-using industries include work in workrooms in which lead salts or oxides are used in such a state that they give rise to lead dust in the air; work in occupations in which metallic lead is regularly used in the molten state; and work in connection with tetraethyl lead.

It is recognized, on the other hand, that the handling of lead salts or oxides which are completely incorporated in solution or suspension, or are in impervious containers, does not involve appreciable hazard, provided the workrooms are segregated from those in which lead compounds are used in the dry state, and are essentially free from lead in the atmosphere. Minors of 16 and 17 years may, therefore, be assigned with comparative safety to such work in lead industries. Work in other workrooms in which no lead is handled, if fully segregated, is also suitable.

### *Exposure to Carbon Disulfide*

The principal use of carbon disulfide is in the manufacture of viscose rayon and allied products (sausage casing, cellophane, etc.). Exposure to carbon disulfide in sufficient concentration may cause severe poisoning, with only slight and indefinite symptoms at the onset. As a result of advances in the methods of control, there is no longer the degree of hazard from carbon disulfide in industry that at one time existed. Indeed, industrial hygienists generally are of the opinion that in some modern plants which have developed both engineering and medical control to a high level, the concentration of carbon disulfide in the atmosphere is generally maintained well below the maximum permissible limit of 20 parts per million proposed by the American Standards Association and accepted in many States. Moreover, pre-employment examination and, to some extent, periodic physical examinations are used in order to keep from exposure any individuals considered to have unusual susceptibility and to check the adequacy of engineering control.

It has generally been considered good practice in viscose-rayon plants not to employ persons under 18 years of age in departments in which potential exposure to carbon disulfide exists. The present relative labor shortage in many regions of the country and the probability that the labor-supply situation will become even more difficult, however, lead to consideration of the possibility of increased employment of persons 16 and 17 years of age. The Children's Bureau is

issuing, in the leaflet dealing with carbon disulfide, examples of occupations for which a minimum age of 18 years is suggested because of potential exposure to carbon disulfide, and examples of related occupations which are considered comparatively safe and suitable for the employment of young workers 16 and 17 years old. The policy now generally in effect in the viscose-rayon industry against the employment of minors under 18 in departments with carbon-disulfide exposure should be maintained, but, wherever it is necessary, minors 16 and 17 years of age may well be employed in many occupations in departments free from exposure to carbon disulfide.

The standard lists specific occupations in the manufacture of viscose rayon where there is no exposure to carbon disulfide and where minors may be employed; it also lists the specific occupations where an exposure is involved and where minors should not be employed.

The same type of classification applies to occupations in other carbon-disulfide-using industries. An 18-year minimum age should prevail in workrooms where carbon disulfide is produced. In the rubber-manufacturing industry or in the repair of rubber articles, minors under 18 should be excluded from workrooms in which material freshly dipped in carbon disulfide is dried or handled. When carbon disulfide is used in the open air, as for example, in the fumigation of corn bins, minors under 18 should not be employed about the place where this operation is being carried on.



## EMERGENCY FARM EMPLOYMENT OF NONFARM YOUTH, 1942

DURING the summer and fall harvesting seasons of 1942, school children and youth played a significant part in harvesting the crops in areas where critical labor shortages developed because of war conditions. In the northeastern States and on the west coast especially, organized programs for the employment of youth on farms were developed where there were acute shortages of workers, and such programs were also resorted to in the Midwest and in scattered areas all over the country. Similar programs are expected to be used more extensively in 1943 for certain kinds of farm work. Information concerning some of the experience of the 1942 season, which was obtained by the United States Children's Bureau,<sup>1</sup> is here given.

### *Organized Programs*

Programs for the use of nonfarm youth in agriculture in 1942 were of three types: (1) Day hauls; (2) work camps; and (3) individual placements on farms.

The largest number of nonfarm youth employed under any of these programs were employed as day workers for harvesting work, on the day-haul basis. Farmers collected the young workers at central points, such as the schools, the United States Employment Service office, etc., and transported them daily to and from their work. As many as 200 to 400 children were sent out from some cities at the

<sup>1</sup> United States Department of Labor. Children's Bureau. *Observations on Emergency Programs for the Employment on Farms of Workers Under 18 Years of Age, Summer and Fall, 1942.* Washington 1942. (Mimeographed.)

peak of the summer harvesting season, being transported daily as far as 30 to 40 miles each way. Considerable numbers of children were recruited during the school term directly from the schools in the villages and towns in agricultural areas, to work on farms only a few miles away.

In some of the programs children recruited in cities and towns lived in work camps in the area where they were employed. In others, they lived on the farm where they were employed; usually this was where a single youth or a small group did general farm work.

In some States the programs were State-wide, but in others they were only on a local basis. State programs relate chiefly to recruitment and placement of children and provision for releasing them from school. New York and New Jersey provide by law for the excusing of children 14 years of age or older from school to work in agriculture for 30 and 15 days a year, respectively. The New Jersey law contains certain standards to protect the young workers. In New Hampshire an order of the commissioner of education provides in detail the procedure by which individual pupils may be excused from school; placements are made by the U. S. Employment Service.

Recruitment and placement of young workers to supply the needed farm labor were the primary objects of organized programs. Working or living standards were a secondary consideration and were seldom made the responsibility of any particular agency, though in a few cases such standards were set and maintained.

Generally, programs for utilizing young people for farm work were organized only when all possible sources of adult labor had been exhausted. In some cases, however, registration of school children was premature and without relation to anticipated need or general plans.

### *Selection of Workers*

*Age.*—In most programs for excusing children from school for farm work, the minimum age set was 14 years, though in some communities it was 12 years, and in a few cases there was no set minimum. Where the entire school was closed, or from the seventh grade through high school, many children under 14 years also worked. As there was usually no provision as to proving age in the programs, probably many children under this age worked.

In many areas of labor shortages most of the children working on a day-haul basis were under 16 years of age, as those of 16 and 17 years worked in canneries or other food-processing plants, where wages were higher. Many programs where the children were required to live away from home restricted recruitment to those over 16 years of age.

*Health.*—In programs for recruitment of school children to work away from home, consultation of the school health record or (where school physician's services were available) physical examinations of the children were usual. In mass recruitment for day-haul work, especially in vacation time, a health check was not general.

*Fitness for farm work.*—The Volunteer Land Corps program was a notable exception to the usual practice of accepting any recruit of the required minimum age. Recruits for farm placement by the Land Corps were selected only after careful investigation through personal interviews. But in some programs of recruitment of city youth for



work camps, where on the contrary fitness for or interest in farm work was not investigated and the publicity was misleading, there were cases of young workers having to be sent home because of serious behavior problems.

### *Preparation and Training*

The large majority of the inexperienced city or town children recruited for farm work were given no training or preparation of any kind before their employment. In a few cases, however, vocational agricultural teachers or 4-H clubs were used for the training of nonfarm youth, and a few scattered institutes were held, especially for those who were to be employed as farm hands for the season.

### *Supervision of Workers*

The experience of 1942 emphasizes the urgent need of special supervision if the use of nonfarm children and youth as emergency farm workers is to be successful. The farmers, it was found, were likely to assume that the children knew more about proper methods than they did, and usually they had neither the time nor the inclination to give the youthful workers the attention and encouragement they needed. How satisfactory the services of such workers were, and especially those on a day-haul basis, depended on the skill of the farmer in handling children and the amount of supervision provided.

### *Working Conditions*

*Transportation.*—The employers generally provided the transportation for young workers. In day-haul programs, trucks or cars and also school busses were used. In case of work camps, the employing farmers generally paid for transportation from the recruitment center to the camp and supplied daily transportation from the camp to the farms.

An attempt to provide safe transportation was usual, the standards governing generally being those provided by State legislation. In New York State, which has a good law regulating the transportation of workers, the trucks carrying the children to and from their work had seats, sides, and locked gates in the rear. Generally, when children were placed through the Employment Service, its representatives checked on the transportation and refused to place children with farmers who had no liability insurance on their trucks or exceeded the legal speed limits.

*Wages.*—In most areas young workers received the same rate of pay as adults for comparable work. The common practice in harvesting work was to pay the prevailing piece rates. Their earnings in such cases depended upon their speed and skill, their capacity for staying on the job, and on whether the trees or plants allotted to the pickers were full or had already been picked over.

An hourly rate was paid in certain crops in some sections, as in western New York, where as much as 40 cents an hour was paid for picking tomatoes. Earnings of \$1.25 to \$1.50 a day were most commonly reported for harvesting work, but as little as \$1 a day and

as much as \$3 or \$4 were also reported. Payment of day workers at the end of the day was the method generally used, but in some instances where farmers were accustomed to pay by the week or at the end of the season, they found it difficult to arrange to pay each day. Difficulties in collection were reported in some instances where temporary day workers were not paid at the end of each day.

In work-camp programs, where payment for board and room was required, bad weather, insufficient work, or low earnings made it difficult in some cases for the campers to meet such payment, but substitute sources of income were provided in well-conducted projects. Thus, in one camp in New York 30 cents an hour was paid for kitchen work. In one county in Maryland, boys did odd jobs in town, such as cutting lawns, or worked in the town drug store, to earn the money. Programs for 1943 recruiting should consider this financial problem.

In programs where boys were placed on farms as general farm hands by the month, the county war board or agricultural defense committee generally fixed some standard of wages. The standard reported in a number of communities was \$20 or \$25 a month and room and board.

*Hours.*—In case of day hauls, the children usually met the farmer's truck at about 7:30 a. m., and even as early as 6 a. m. in some cases, and returned home at 6:30 or 7 p. m. The workday was generally 8 to 10 hours exclusive of time for transportation. In some cases work was on a part-time basis—half a day at school and half a day at work. In harvesting work, 1 hour was the usual lunch period. No rest periods were provided, but as the piece-rate basis generally prevailed, usually no notice was taken of frequent stops.

*Sanitary facilities.*—Drinking-water facilities and washing and toilet conveniences in the fields were generally not the best. Water was usually brought from the well in large containers, with a common drinking cup or dipper. Instances of very unsanitary conditions were reported. Lack of sanitary facilities are dangerous both to workers and to the consuming public. Minimum sanitary standards should be provided on the farms for the protection of young workers recruited for the 1943 harvests.

*Accident prevention and insurance.*—Safety instruction and accident-prevention measures were not made a part of most programs. Few serious accidents to young workers were reported, but this was probably due to lack of procedure for reporting accidents. Truck insurance was usual among the farmers, but the amounts carried were inadequate. Large growers probably carry workmen's compensation and employer's liability insurance, but small farmers usually do not.

*Housing in work camps.*—Various methods were used in the housing of young workers brought from outside the area to meet local labor shortages. Among the facilities used for work camps for such young workers were the camps of youth-service agencies, or private schools, public schools, unused resort hotels, and tourist cabins. The sanitary conditions in these various accommodations ranged from very bad to very good. Inadequate financing is involved in the problem of adequate and sanitary housing, as payments by the young workers for quarters are usually insufficient to provide facilities which will meet good standards.

*Medical care.*—No provision was made in the organized programs for medical care. In case of emergency, local physicians and hospitals

were usually available, though presumably at the worker's expense. As he would not be able to work when ill or injured, obviously he would have difficulty in meeting such expense.

### *Turn-over of Workers*

The rate of turn-over was high in many programs, available estimates indicate, especially those where workers were not carefully selected, supervision or working conditions were unsatisfactory, or wages were inadequate. Both in day-haul and many camp programs there was continuous turn-over. Some of this may have been caused by misleading statements as to probable earnings, but poor living conditions and limited recreation opportunities probably also played a part. The experience of the Volunteer Land Corps indicates that careful supervision and settlement of individual problems as they arise will reduce turn-over.

### *Conclusions*

From the experience of these programs of using school children and youth in emergency farm work, the following conclusions were reached:

The experience of this past season shows the need for careful advance planning of any programs for the recruitment and placement of young people as emergency farm workers. Plans should be made at once for any programs and projects to be set up next year. The most urgent needs are for community planning to insure the setting up of minimum standards for the employment of young workers, to fix definite responsibility for seeing that these standards are maintained, and to provide adequate supervision of young people while at work.

Other pressing needs are more careful selection of workers; advance preparation and training, especially in safe methods of work; insurance to cover injuries at work; adequate financing of housing facilities; and supervision for workers who live away from home.



# Cooperation

## COOPERATIVES AMONG STUDENTS IN THE UNITED STATES, 1941<sup>1</sup>

### Summary

THERE was comparatively little cooperative activity in American colleges until the depression that started in 1929. Prior to that time a number of college bookstores had been started—some dating back to the 1880's and 1890's—which operated on a more or less cooperative basis. Some of these had grown to considerable size but not, generally, as a result of any great student activity in the organization.

#### STUDENT COOPERATIVES IN THE DEPRESSION

The student working his way through college<sup>2</sup> has always been common in most educational institutions in the United States. The plight of this type of student, as well as that of students whose parents were barely able to finance an education for their children, became more and more acute as the depression progressed. It was a situation that called for exercise of all the ingenuity that could be summoned and for trying new techniques to cut student living costs. This situation gave rise to the so-called cooperative house or "living" organization, whereby these needy students could pool their scanty funds and, by doing all the work themselves, provide board and shelter for the group.

One writer thus describes<sup>2</sup> the situation out of which the earliest of the cooperative houses grew:

Incomes from home were shrinking away to nothing; worse, the jobs upon which so many of them depended to carry them through the college year were disappearing as the army of unemployed grew.

In 1933 some of these boys were putting up a desperate struggle. They lived in the cheapest of rooms, ate at the meanest lunch counters, and too many times went to class hungry. One of them had lived for 2 weeks on a diet of bread and apples. That spring a lot of these ambitious boys saw no chance of coming back the following fall.

The "cooperative house" provided an opportunity for the student with determination to continue. In one such case, the college—a vocational school—gave a group of students a 10-year lease on a plot of ground on the campus and the boys built themselves a house and made much of the furniture in it. As most of them came from farm homes where food was plentiful, though cash was not, they contributed fresh and home-canned fruits and vegetables and one boy

<sup>1</sup> Report of survey initiated at the request of the University of Maryland in the fall of 1941 and carried on jointly by that university and the Bureau of Labor Statistics. All the preliminary work of preparing the schedules and of circularizing the educational institutions and cooperatives was done by the students under the direction of Profs. Lincoln Clark and Victor Bennett. The present report was prepared by Florence E. Parker, of the Bureau of Labor Statistics.

<sup>2</sup> Bertram B. Fowler in *Survey Graphic*, June 1939.

even brought a cow. Additional food was raised in the boys' own kitchen garden.

In another institution a group of 12 students acting on the suggestion of a faculty adviser rented a long-vacant dilapidated house, made an arrangement with the owner whereby he furnished materials, and not only put the house in repair but sank a well and made water connections. Furniture and furnishings either were made by the boys or were brought from home. This association was successful from the first and became the pattern for many other similar groups on the same campus, until finally all the suitable nearby housing was exhausted and the college itself undertook the construction of additional buildings which are operated on a semicooperative basis.

In a western university the student cooperative housing movement started during the worst of the depression (in 1933) when a small group of students pooled their meager resources, rented a house, and began to furnish their own meals, in order that they might continue their education. From that small beginning the group has expanded year by year, reaching a membership of over 650 in 1941. It has taken over, one after another, five apartment houses, converting the apartments into sleeping rooms for the members. All of the buying is done through one office and it is reported that the food for three of the houses is prepared in one kitchen.

#### DEVELOPMENT OF STUDENT COOPERATIVES

The movement thus started continued to expand through 1941, when it was halted by conditions arising out of the war. Some of the associations grew out of the economic necessity of the members as noted above. Others arose from the members' interest in the cooperative movement, resulting from their academic studies or from informal discussion groups of their own.

Some of the leaders in the campus cooperative movement were interested to find out what students at other schools were doing and made contacts by correspondence or personal visit. These early contacts led to several conferences of delegates from the student cooperatives in several areas, at which experiences were exchanged and common problems discussed. Out of these conferences grew the three regional leagues of campus cooperatives now in existence—the Midwest Federation of Student Cooperatives (1939), the Pacific Coast Student Cooperative League (1940), and the Central League of Campus Co-ops (1940).

At the end of 1941 there were nearly 300 active student cooperatives on 144 campuses in 44 States. In addition there were many educational institutions where the college itself provided so-called "cooperative houses" or dormitories, selecting as residents deserving students who "cooperated" to the extent of performing the necessary household duties and thus reducing their living expenses, but had no control over the actual management of the organization.<sup>3</sup>

On the basis of a study recently completed, made jointly by the University of Maryland and the Bureau of Labor Statistics, it is estimated that in 1941 about 50,000 students were members of campus cooperatives and that these student enterprises did a business of over \$6,000,000 in that year. Of the associations furnishing meals,

<sup>3</sup> The Bureau has record of 210 such cooperative groups. Schedules were received from 44 of these, with a membership of 4,165 in 1941; 30 of them had a combined business of \$860,149 in that year.

112, with 6,940 members, reported they had served over 138,000 meals per week during the school year.

In certain of the cooperative houses some of the members not only carried out their share of the work, but earned part of the cash cost of their board and room by performing extra tasks. In addition many of the students were working outside to earn at least part of their expenses. There is one student cooperative on the Pacific coast the function of which is to obtain paid jobs for the members. A student housing association in the Southwest reported that 40 percent of its members earned all of their expenses and 75 percent earned more than half. A Kansas association stated that most of its members have outside paid employment; in fact they have built up a local reputation for their reliable services, so that when anyone has some work to be done he calls upon the cooperative.

Social disadvantages that might attach to organizations so obviously designed for students on a lower-than-average economic level are dispelled by emphasis on character and scholarship and by a program of social and athletic events during the school year. Where there are several student cooperatives on the campus, social activities are generally carried on jointly and on a few campuses there are intercooperative councils. Joint purchasing of food and other supplies is also done for the purpose of economy in buying.

The levels of scholarship attained by the members of these houses—quite largely students who are earning all or part of their expenses—is a matter of justifiable pride to the associations. Report after report pointed out that on the basis of the average grade of the residents the association was at or near the top, among the various organizations represented on the campus.

Although the "living" associations are generally started by the needier students who must make every penny count, the 84 associations that reported as to equipment owned had accumulated furniture and other household equipment amounting to \$145,230. Assets totaling \$2,180,231 were reported by 87 associations, and the members of 49 cooperatives owned an equity (members' capital, reserves, surplus, and undivided earnings) amounting to \$1,141,429.

The 181 associations reporting in the study represented 114 educational institutions in the United States. These included cooperatives in 39 universities (of which 25 were State universities), 14 theological schools, 50 colleges (of which 6 were teachers' colleges), 2 institutes (other than theological), 5 junior colleges, and 4 schools of less than junior-college rank. Five Negro educational institutions were represented among the reporting associations.

### *Kinds of Cooperative and Joint Activity in Schools*

The student cooperatives include not only the stores handling books and students' supplies, eating clubs (which do not run rooming houses), and associations providing both board and room, but also several credit unions, a valet association, and a few associations which (beginning as eating clubs, bookstores, etc.) have expanded into general supply associations serving the whole locality. Until the war intervened, the "living" association was the most rapidly growing form of student cooperative, for it provided assistance at precisely the point of heaviest expense and thus enabled many students to continue their education who would otherwise have had to leave college.



The organizations from which reports were received fell into three types, the organization and operation of which may be briefly described as follows:

1. In some cases the college provides the premises (house, dormitory, or store), undertakes responsibility for management, and provides services for a low, fixed fee (also meeting such deficits as may occur). If the enterprise is one providing living accommodations the residents are chosen by the college from among the needier students, on the basis of character and scholarship. Their "cooperative" activity consists of working together in the household tasks, thus earning at least part of their expenses. There may be an association of students in connection with the enterprise and it may have a certain leeway regarding household matters; however, final control on all points is vested in the college. In this survey all organizations of this type were discarded as not being genuinely cooperative.<sup>4</sup>

2. Organizations considerably more cooperative in nature and operation are found in some colleges where the students live in a building rented from the college, and operate the enterprise, under the general supervision of a college-appointed house mother. In these cases there is a student cooperative association with board of directors, and all the practical details and problems connected with the house are settled either by the board or by the members in membership meeting. The college, however, has majority representation on the board and a deciding voice (where it chooses to exercise it) in the selection of the resident members. There is usually some subsidy by the college (such as payment of house mother's salary, etc.). These associations were classed as semicooperative and were included in the tabulations.

3. The third type was cooperative in all respects. The students had initiated the enterprise, were operating it themselves on a self-supporting basis, and had final and complete control of the policies and actions. Many of these had some faculty members on the board. In some associations these were elected by the faculty members of the cooperative, in others they were elected by the total membership; in either case they served as representatives of the members, not of the college. In other associations certain members of the faculty were chosen by the students and served in an advisory capacity only.

A distinctly friendly and encouraging attitude on the part of most colleges toward the student cooperatives on their campuses is evident from the reports at hand. Often, individual professors or the faculty as a whole have been responsible for starting the organization or have given great assistance in getting it under way. In some cases the college itself has advanced loans as the original capital. Faculty advisers have done a great deal by their interest and advice to keep the local cooperatives operating on an even keel. Only one association reported a really unfriendly attitude on the part of the educational institution whose students it served, and only a few associations reported indifference or general lack of interest.

A few cooperatives were initiated by or suggested to the students by teachers in the school, with the idea of giving the pupils some experience in running a business enterprise.

Most of the cooperatives stand on their own feet, paying all of their own operating expenses. A few, as noted, are subsidized to a certain extent by the institution whose campus they serve. Thus the college

<sup>4</sup> See footnote 3, page 703.

may provide space and heat for a bookstore or eating club and possibly also furnish light. One college helps to pay the salary of the cooperative manager by offering a scholarship of \$100 each semester; the cooperative pays the rest of his remuneration. Such cases are infrequent, however, and even some of the favored associations feel that the arrangement restricts their independence and subjects them to too much college control.

In some schools one or more of the cooperative houses have had advice and assistance from groups or organizations outside the campus. Among the associations reporting in this study were houses sponsored by the Associated Students of the college, 4-H Clubs, Y. W. C. A. or Y. M. C. A., college alumni, Association of University Women, local business clubs, etc. At the University of Texas many of the houses have been built for the cooperatives by organized assistance from the people of the counties from which the residents have come; the associations incorporate in their names the name of the sponsoring county.

### *Geographical Distribution of Associations and Membership*

Of 297 students' associations known to the Bureau, 181 furnished usable reports. As indicated in table 1, nearly 70 percent (124) of the reporting associations were eating clubs or associations furnishing rooms either with or without board, 47 were store associations handling books and students' supplies or other commodities, 4 were credit unions, 5 were educational bodies, and 1 was a cleaning and pressing association. Generally, each association had a single place of business. However, one of the bookstore associations has several branches, and a small proportion of rooming-house associations each operate a number of houses. Thus in one university one association has 6 buildings and another runs 2. Associations in other places run 2, 5, 9, and 16 dwellings each. In the typical association providing lodging and board the membership consists of the residents of one house, and the average size (66) of these associations is therefore considerably below that of the other types. However, that average includes several associations operating more than one house and 4 associations operating from 5 to 16 each; in the individual associations membership ranged from 9 to 666. Among the book and supply cooperatives the range was from 10 to 14,345 and the average 1,006.

TABLE 1.—*Membership of Reporting Student Cooperatives, by Type, 1941*

Commodity or service provided	Total number of associations reporting	Membership		
		Associations reporting membership	Number of members	Average per association
All types.....	181	154	41,627	270
Books and students' supplies.....	43	32	32,194	1,006
Other supplies.....	4	4	360	90
Rooms and/or meals.....	124	116	7,642	66
Loans.....	4	1	281	281
Other.....	6	1	1,150	1,150

As indicated in table 2, the largest numbers of associations were found in Illinois (40), California (24), and Michigan (23). Five other States (New York, Ohio, Oregon, Texas, and Wisconsin) had over 10 associations each.

TABLE 2.—Geographic Distribution of Student Cooperatives and of Membership, 1941

State	Total number of known associations	Reporting associations				Membership	
		Total	Book and supply	Rooming and/or boarding	Other	Number of associations reporting	Members
Total.....	297	181	47	124	10	154	41,627
Alabama.....	3	1	1			1	140
Arizona.....	2	2	1	1		2	2,430
Arkansas.....	6	6		6		6	390
California.....	24	18	7	10	1	12	2,189
Colorado.....	10	4		4		3	77
Connecticut.....	2	2	2			2	3,950
District of Columbia.....	1	1	1			1	300
Florida.....	2	1			1	1	281
Georgia.....	8	4	1	3		3	605
Idaho.....	2	1		1		1	118
Illinois.....	40	28	7	19	2	24	1,576
Indiana.....	5	5	1	4		5	633
Iowa.....	2						
Kansas.....	8	2		2		2	102
Kentucky.....	4	2	2			1	110
Louisiana.....	5						
Maryland.....	2	2	1		1	1	100
Massachusetts.....	8	4	3	1		4	15,265
Michigan.....	23	12		12		13	349
Minnesota.....	9	7		5	2	5	301
Mississippi.....	3	1	1				
Missouri.....	5	1		1		1	60
Montana.....	2	2		2		3	225
Nebraska.....	5	5		5		5	168
New Hampshire.....	1						
New Jersey.....	6	4	2	2		2	3,528
New Mexico.....	1	1		1		1	27
New York.....	13	6	3	3		4	169
North Carolina.....	5	2		2		1	25
North Dakota.....	2	1		1		1	36
Ohio.....	14	12	3	7	2	11	1,960
Oklahoma.....	3	2		2		2	394
Oregon.....	12	6	1	5		6	3,602
Pennsylvania.....	7	5	3	2		4	479
Rhode Island.....	1	1	1				
South Carolina.....	3	1	1			1	110
South Dakota.....	1	1	1			1	300
Tennessee.....	2	1		1		1	50
Texas.....	20	14	2	12		11	367
Utah.....	1	1		1		1	120
Vermont.....	1	1	1			1	388
Virginia.....	3	1			1		
Washington.....	2	2		2		2	321
Wisconsin.....	17	8	1	7		8	382
Wyoming.....	1						

<sup>1</sup> Includes 1 which also handles books, etc.

<sup>2</sup> Includes 1 which also provides meals.

### Age of Associations

The bookstores are a much older form of student cooperative than are the associations providing meals and lodging. Of 31 bookstores for which the year of formation is known, 4 had been in existence since



before 1900 and 3 were formed between 1901 and 1920. For the whole group the average age was  $13\frac{3}{4}$  years.

Among the lodging associations, the oldest reporting dated only from 1926, and it was not until the middle of the depression that these associations began to be formed in any number. Of 101 associations reporting year of formation, 74 had been started since 1936. For the whole group the average age was just under 4 years.

### *Kind and Amount of Business*

*Goods and services provided.*—Practically all of the cooperatives dealing in books and students' supplies carried both new and second-hand books, nearly half also handled fiction, and about one-fourth sold magazines. Smokers' supplies, sports goods, and candy were also among the commodities more commonly handled. Less frequently these associations had a soda fountain or lunch counter, provided laundry or dry-cleaning service or shoe repair, and handled stationery, notions, etc. One of the oldest student-supply associations had become practically a department store, handling all the articles common to such a store.

Among the supply associations was one that had widened both its services and its membership until it was serving the whole community with groceries, books, and such services as shoe repair, laundry agency, and dry cleaning. Two associations provided free mail boxes and other post-office service for members.

Generally there is a clear-cut distinction between the book and supply cooperatives and the cooperative houses. However, as noted, several bookstores had started a lunch counter or cafeteria and a few of the rooming houses had started the sale of books and supplies on a small scale. Among the "other supplies" associations noted in the table are cooperatives which do purchasing of supplies for local fraternities, sororities, and student housing and eating clubs on the campus.

Most of the book and supply associations extend their services to nonmembers as well as members. Many of the eating clubs follow this practice also. The associations providing lodgings generally serve members only; however, if the association provides meals as well and if the dining-room facilities permit, it may have nonresident boarding members and may also serve nonmembers coming in from outside.

As to accommodations provided, some of the associations had only a single sleeping room—dormitory style—but provided study quarters in smaller rooms to each of which several students were assigned. At the other extreme were associations providing sleeping accommodations for several hundred members either in dormitories or in smaller rooms or both; all of these large associations were operating more than one house. Generally, among the reporting associations there were 2 to 4 per sleeping room.

Only 35 associations reported that they had space for additional members; these could have accommodated 254 more persons. One

large association had a long waiting list from which new members were admitted, as vacancies occurred, in order of seniority on the list.<sup>5</sup>

*Amount of business.*—A business of \$4,674,092 was done in 1941 by the 132 student cooperatives that furnished reports on this point (table 3). Although the associations handling books and students' supplies accounted for nearly 74 percent of the total, this is mainly because of the inclusion of one very large association whose business formed nearly half of the whole students' supply total. Elimination of this association would reduce the average sales per association for the group from \$90,998 to \$55,071.

TABLE 3.—*Business, Earnings, and Patronage Refunds of Student Cooperatives, 1941*

Commodity or service provided	Business or gross income			Net earnings (after subtracting losses)		Patronage refunds	
	Number of associations reporting	Amount	Average per association	Number of associations reporting	Amount	Number of associations reporting	Amount
All types.....	132	\$4,674,092	\$35,410	91	\$230,331	48	\$133,437
Books and students' supplies.....	38	3,457,925	90,998	32	201,892	15	124,151
Other supplies.....	3	260,749	86,916	2	2,187	3	2,232
Rooms and/or meals.....	89	919,544	10,332	55	25,001	29	6,554
Loans.....	1	21,941	21,941	1	695		
Other.....	1	13,933	13,933	1	556	1	500

Net earnings of \$230,779 were reported by 87 associations and losses aggregating \$448 by 4 associations (1 bookstore and 3 living associations)—a combined "net" of \$230,331 for the 91 associations. Fifteen associations reported that they just broke even. About 88 percent of the combined net was accounted for by the organizations selling books and students' supplies. The comparatively low net earnings shown by the associations providing room and board results from the practice in a large proportion of associations of setting the charges at as near cost as possible, so that there is little or no net margin.

Only 48 associations reported the return of patronage refunds on the 1941 business. The total returned by these associations amounted to \$133,437. This was largely from the book and students' supply group, and here, again, over 90 percent from one very large association.

Similar data, by States, are shown in table 4.

<sup>5</sup> The situation as thus reported related to conditions in the spring of 1942. As this report is written (in the spring of 1943) the situation has changed considerably. Instead of having to find larger and larger buildings to accommodate an increasing membership, decreased college enrollments have changed the problem into one of finding a sufficient membership to keep the houses operating efficiently and to keep pro rata costs down to a sum which the remaining members can afford. Some associations have already discontinued operations for the duration of the war.

TABLE 4.—*Business, Earnings, and Patronage Refunds of Student Cooperatives, 1941, by States*

State	Business, or gross income		Net earnings (after subtracting losses)		Patronage refunds	
	Number of associations reporting	Amount	Number of associations reporting	Amount	Number of associations reporting	Amount
Total	132	\$4, 674, 092	90	\$230, 331	48	\$133, 437
Alabama	1	549	1	87	-1	84
Arizona	1	61, 000	1	4, 000		
Arkansas	3	15, 465	2	336		
California	15	476, 936	10	22, 554	3	5, 604
Colorado	2	9, 526	1	400		
Connecticut	2	509, 818				
District of Columbia	1	265				
Florida	1	21, 941	1	695		
Georgia	2	19, 862	2	1, 834	2	719
Idaho	1	13, 500				
Illinois	21	130, 361	13	3, 416	8	1, 377
Indiana	4	63, 369	4	886	3	405
Kansas			1	145	1	145
Kentucky	1	1, 079			1	140
Maryland	1	1, 100	1	125		
Massachusetts	4	1, 452, 040	3	133, 667	2	116, 048
Michigan	10	61, 783	4	100		
Minnesota	4	29, 335	3	250	2	117
Missouri	1	12, 500	1	600		
Montana	2	20, 810	2	792	2	45
Nebraska	3	14, 695	3	1250	4	183
New Jersey	3	483, 775	2	830		
New York	5	218, 111	4	25, 180	1	304
North Carolina	1	6, 000				
North Dakota			1	460		
Ohio	9	319, 405	7	4, 233	4	3, 435
Oklahoma	2	44, 700				
Oregon	7	246, 449	7	13, 754		
Pennsylvania	4	29, 938	3	801	2	861
South Dakota	1	34, 216	1	1, 038	1	222
Texas	8	227, 968	4	8, 995	2	15
Utah	1	650				
Vermont	1	32, 482	1	1, 046	1	928
Washington	2	79, 108	2	3, 531	2	518
Wisconsin	8	35, 356	5	1, 076	6	2, 287

<sup>1</sup> Loss.

### Price Policies and Charges

Service at current prices is practiced by a considerable part of the book and supply cooperatives and by some of the eating clubs. Some of the bookstores sold books at a specified discount from list prices but handled other goods at current prices.

The more common practice among the "living" associations was either to divide actual running costs among the residents or to set a fixed rate estimated as sufficient to cover the costs. In the latter case assessments might be made later, if the estimates proved to be too low. In the reporting associations the cost of board ranged from \$6 to \$30 per month per person, the most common amounts being \$9, \$15, \$16, and \$20. Room rents ranged from \$1.50 to \$13.67 per month. Some associations allowed the members to cut their food costs by making contributions of canned or fresh fruit and vege-



tables brought from home. In certain associations the individual members are expected to furnish their own bedding and towels (which are, however, laundered by the association). Considerable equipment and housefurnishings have been accumulated by the associations providing rooms or board or both.

### Financial Resources

Many of the campus cooperatives are not capital-stock associations but operate with funds derived from membership fees. A larger proportion of the book and supply associations than of the rooming associations are capital-stock organizations; nevertheless in some of the older bookstores the only financial requirement for membership is a fee of \$1 per year. The associations providing board and room often charge a membership fee, as well as a returnable deposit levied to cover possible losses from breakage.

In general, more capital is required for the initiation of a supply association than for one operating a rooming place, but regardless of amount the raising of sufficient capital is one of the great problems of these student cooperatives. Some of the bookstore associations had been assisted in getting started by loans from the college or from individuals either on the faculty or outside the campus. In most cases however, such funds as were available had been contributed by the members in the form of shares, membership certificates, or refundable deposits. Three associations started without any capital whatever, their first stock of goods consisting of a supply of textbooks received on consignment.

Assets of over 2 million dollars were reported by 91 associations (table 5). The 50 associations which reported as to their share or membership capital had a combined total of \$102,895; members' equity or net worth (shares, reserves, surplus, and undivided earnings) amounted to \$1,141,929. The large margin of net worth over capital is explained largely by the surplus and reserves built up over 60 years' operation by the large association previously mentioned.

TABLE 5.—Assets, Capital, and Members' Equity in Student Cooperatives, 1941

Commodities or services provided	Total assets		Capital (shares and memberships)		Members' equity (net worth)	
	Number of associations reporting	Amount	Number of associations reporting	Amount	Number of associations reporting	Amount
All types.....	91	\$2, 184, 481	50	\$102, 895	50	\$1, 141, 929
Books and students' supplies.....	29	1, 818, 663	17	58, 944	10	1, 011, 385
Other supplies.....	2	72, 110	2	220	2	30, 012
Rooms and/or meals.....	58	271, 686	28	26, 720	36	81, 166
Loans.....	1	18, 072	1	16, 723	1	18, 072
Other.....	1	1, 950	1	288	1	1, 294

Data by States are given in table 6. Next to Massachusetts, the Florida, Ohio, and Washington associations actually own the largest proportion of the businesses which they run.

TABLE 6.—*Assets, Capital, and Members' Equity in Student Cooperatives in 1941, by States*

State	Total assets		Capital (shares and memberships)		Members' equity (net worth)	
	Number of associations reporting	Amounts	Number of associations reporting	Amount	Number of associations reporting	Amount
Total.....	91	\$2, 184, 481	49	\$102, 895	50	\$1, 141, 929
Alabama.....	1	110	1	140	1	12
Arizona.....	1	35, 000				
Arkansas.....	2	2, 125				
California.....	11	261, 702	2	3, 106	6	35, 474
Colorado.....	2	1, 897	1	200	2	1, 802
Florida.....	1	18, 072	1	16, 723	1	18, 072
Georgia.....	1	4, 855	1	493	1	3, 509
Illinois.....	19	29, 344	13	5, 641	7	3, 226
Indiana.....	2	4, 900	1	425	2	2, 417
Kentucky.....	1	315	1	200	1	126
Maryland.....	1	250				
Massachusetts.....	2	1, 032, 482	3	52, 320	2	934, 384
Michigan.....	2	2, 150	2	538	2	1, 681
Minnesota.....	2	3, 800			1	400
Missouri.....	1	2, 400	1	900	1	2, 000
Montana.....	3	16, 192	1	80	2	2, 945
Nebraska.....	2	5, 035	3	466	2	1, 235
New Jersey.....	2	318, 147			2	67, 926
New York.....	4	78, 249	1	160	1	505
North Carolina.....	1	740			1	440
North Dakota.....			1	700		
Ohio.....	6	79, 057	3	491	6	35, 088
Oklahoma.....	2	7, 100				
Oregon.....	4	53, 184			3	5, 936
Pennsylvania.....	4	12, 807	3	2, 115	2	5, 070
South Carolina.....			1	34		
South Dakota.....	1	13, 161	1	600		
Texas.....	6	150, 447			1	500
Vermont.....	1	7, 079	1	3, 880		
Washington.....	1	37, 433	2	11, 783	1	17, 319
Wisconsin.....	5	4, 648	5	1, 900	2	1, 862

### Administration and Management

*Directors.*—A board of directors or its equivalent was universal among the associations but in only 1 book and supply association reporting was the board composed of students only; about one-third of the cooperative houses were in this class.

A mixed board, composed of students and faculty representatives (and in some cases including representatives of other interests—a sponsoring organization, alumni, local townspeople, etc.) was most commonly found among all the types of student cooperatives. In the most typical arrangement the students formed a majority. Among the associations providing board and room the faculty representatives were usually elected not by the faculty but by the students; in many cases faculty representatives served in an advisory capacity only. In a few cases—more generally among the bookstores—the faculty members elected their own representatives on the board.

President, secretary, and treasurer commonly serve for a school year. Other board members and officers may serve during the whole year or may (especially among the living associations) change every semester or every 6–9 weeks, in order to give each resident experience in the various duties.

In few cases do the directors receive any compensation for their work on the board. Among the bookstores one association allows the directors an extra 5-percent discount on the textbooks they purchase, and a few of the housing groups allow them meals or meals and room. One Wisconsin association specifically provides not only that no director shall receive any recompense for service on the board, but that no "pay-receiving employee" shall be eligible for election to the board.

*Committees.*—Membership, auditing, and educational committees are found among all types of student cooperatives. The cooperative houses usually have social and athletics committees as well, and may also have a house committee.

*Manager.*—Managers are always paid workers, receiving all or part of their wages in cash. They are commonly selected by the board of directors or by vote of the members on recommendation by the board. The manager may be one of the members or (especially in the larger associations) a worker hired from outside the group. Where he is a student, continuity of trained management becomes a major problem of the cooperative, because of the rapid turn-over in membership. Some of the associations have tried to meet the problem by electing an assistant manager to serve all or part of a term, as an understudy to the manager, succeeding him in that position when he leaves. Practically all of the reporting associations hold their elections for the ensuing period toward the end of the current year or semester.

#### HOUSE OPERATION

In a typical housing cooperative there are the usual directors and officers, but the actual business of running the house is the responsibility of the manager. As all or most of the work in these student houses is done by the residents, he is responsible for their direction. He organizes the work and assigns the various duties to the individual members. If he does the buying (and therefore the spending of the club's funds) he may also act as treasurer; however, this is feasible only in a small association, because the combined duties in a large association would be unduly onerous for one student to carry in addition to his school work.

In the larger associations the manager generally has several assistants working under his direction. These usually consist of a purchasing agent (who is ordinarily the understudy for the manager), one or more cooks, and a steward. The latter has charge of the preparation of the menus and submits to the purchasing agent orders for the requisite amounts of food and other kitchen supplies; he is responsible for cleanliness of kitchen and pantries and for the serving of the food. The cook may be a nonstudent paid employee, or simply a resident elected to do this work.

Under the direction of these persons the residents clean and prepare vegetables and other food, serve it, wait on table, tend the furnace, make beds, and do the household cleaning and any other tasks assigned. These chores may rotate among the members, in order to prevent any possible inequity in assignments of unpopular tasks, or may be done throughout a specified period by the same persons.



Students work part time in many of the cooperative bookstores, but such service is not required. In most of the rooming associations, however, work sharing is a condition of continued membership. The member receives no direct recompense except that by living in a house run in this way he is enabled to make a marked reduction in his school expenses. Hours of required work ranged, in the reporting associations, from 2 to 60 per month; the average was 16. Some of the associations, however, make provision whereby some or all of the members can do extra work around the house in return for all or part of their living. For such work a regular credit is allowed, ranging in the reporting associations from 20 to 60 cents per hour.

One organization which requires 6 hours' work per week points out that, in addition, each member is expected to attend the house meetings (usually once a week, but at least twice a month) at which all matters of house policy are thrashed out. "A complete picture of life in a student co-op would also include the participation of many house-members on committees for which they receive no house-work credit."

Aside from the manager, the cook is most likely to be the only outside paid employee. However, the larger associations reported the employment of several full-time paid workers, including not only cooks, but dieticians and accountants. In some of the associations—notably those in which there is a considerable amount of college participation (and control)—a house mother or dining-room hostess is employed full or part time.

### *Cooperative Practice Among Student Cooperatives*

#### MEMBERSHIP PROVISIONS

Few limitations on membership were found among the bookstore associations in comparison with the room-and-board cooperatives. In a good many of the bookstores any person on the campus is admitted more or less automatically. The rooming-house associations naturally exercise some selection in order to insure a house population that will be congenial. Some of the cooperatives provide for a trial period after admission, during which the other residents can judge whether the new member will fit into the group. Membership limitations based on sex are, of course, general; usually only the associations operating several houses accept both sexes.

Among the common criteria upon which membership applications are decided in the associations providing rooms or meals is the financial status of the applicant. As the main purpose of a large proportion of these associations is to assist students of limited financial means to continue in school, many of them accept only members in this category. Attainment (and maintenance) of a specified scholastic level is another usual requirement and some associations provide for expulsion if a member's grades fall below a specified mark. Character and good habits were requirements in some cases, but racial bars were reported in only 7 organizations; all of these accepted only white students and one of them excluded Jewish students. On the other hand, a large proportion of the associations specifically provide that there shall be no exclusions on the basis of race, religion, or political affiliation; in fact several associations were formed to

counteract existing local prejudices in this respect. A New York association counted among its residents students from Algeria, Austria, British Guiana, Canada, China, India, Italy, Panama, and Russia. In one Michigan cooperative house members of eight denominations were living. Some of the eating clubs and living associations are primarily of one religious denomination but this is the result of the natural gravitation of persons of like beliefs, not of policies of exclusion by the associations.

Whereas in the bookstores there are almost no exclusions from membership, many of the living organizations depart from Rochdale practice in this respect. Most of them require adverse votes ranging from 51 to 100 percent of the members in order to bar an applicant, but in five reporting associations one negative vote and in one association five such votes were sufficient for rejection.

*Voting.*—The principle of "one member, one vote" appears to be almost universal among the reporting associations, irrespective of type, as was also the prohibiting of vote by proxy. Just one association (a bookstore organization), otherwise cooperative, allowed one vote per share; as the maximum number of shares allowed per member was 5, this meant that in practice the number of votes per member ranged from 1 to 5.

#### MEMBERSHIP PARTICIPATION AND CONTROL

Largely because of the differences in the nature of the business done and the method of operation, the associations providing meals and rooms are in general considerably more successful than the bookstores in obtaining active student interest. It is axiomatic that the more actively the members participate in carrying on the association, the more interested they are in its success. Most of the bookstore associations were formed long before the present student membership entered college and their policies have pretty well crystalized; thus, given an efficient manager, they run without the necessity of much activity on the part of the student members. Also, faculty members always constitute a considerable part of the board of directors in the bookstores and undoubtedly whatever guidance is needed in running the business is expected from them rather than from the students. Furthermore, under the form of government under which some of the older bookstore associations operate, the student participation provided for is only nominal.

The lodging associations, on the other hand, are young and struggling and, as they are for the most part composed of students with small resources, must have the active participation of every member if they are to survive at all. Their policies and practices are still in process of formulation—largely by trial and error—and it generally requires the combined mental and physical efforts of the members to meet the problems that arise from day to day.

Generally speaking, actual and effective membership control is far more pronounced in the living associations than in the bookstores. The conduct of a cooperative house is something that touches the member in nearly every aspect of his everyday life, whereas the bookstore represents only a small part of his budget and is apt to be considered as a thing apart, only remotely affecting him; therefore as long as it appears to be running smoothly he is likely to take little active interest in its operation.

Poor attendance at membership meetings is a common complaint of book and supply associations. The cooperative houses often hold their meetings at the lunch hour and in such cases quite generally report that meetings are well attended. It is noticeable, also, that whereas the bookstore associations provide for one or not more than two membership meetings a year, the housing cooperatives hold them much oftener—once a month or even once a week. The fact that the members are close at hand and do not have to assemble from scattered places aids in the ease with which meetings can be held.

#### PATRONAGE REFUNDS

Refunds on patronage seem to be a fairly general practice among the associations, except where operation is on a cost or cost-plus basis. This latter qualification of course applies to a large proportion of the student-operated houses and eating clubs. Further, many of the book and supply associations make a practice of retaining in the business all or a large part of the year's earnings; in some of these the operating capital has been largely built up in this way. Some of the rooming associations use any net surplus at the end of the year for the purchase of new equipment or furnishings.

#### BYLAWS OF STUDENT COOPERATIVES

Of the 103 student living associations that reported the manner of adoption of bylaws, only 7 stated that these were not voted into effect by the members. None of these 7 reports indicated the source of the bylaws, but probably they emanated from the educational institution itself. Altogether 33 book and supply associations reported as to the method of adoption of bylaws. In 24 (about 73 percent) they had been adopted by vote of the members. In the remainder it was reported that they had not been so voted; however, as the bookstores are among the older organizations and as the entire membership changes during every 4-year period, it is probable that this simply meant that the bylaws had not been voted upon by the present membership but had been inherited from previous years.

The bylaws of some of the older bookstores leave something to be desired, from the cooperative viewpoint, and some of them need revision. Also, partly because some of them were formed long before the enactment of the State cooperative law (or are in States which still have no such law) and partly in order to insure continuity of operation in spite of a rapidly shifting membership, a few place more power in the hands of the faculty than in those of the student members.

Harvard Cooperative Society,<sup>6</sup> the oldest of the college cooperative bookstores, has a rather complicated arrangement of the trusteeship type under a constitution described as "a model of obscurity." The organization actually consists of two bodies by the same name—one an unincorporated association, the other an incorporated company. Any officer, student, or "past member" of Harvard University, Radcliffe College, or the Episcopal Theological school can become a participating member upon payment of a fee of \$1. These members constitute the unincorporated society. However, only those who are officers or students in Harvard University are entitled to vote. The

<sup>6</sup> All data in this description of the society are from Harvard Cooperative Society, Past and Present, 1887-1942, by N. S. B. Gras, Cambridge, Mass., Harvard University Press, 1942.



actual business is carried on by the incorporated company, the \$50,000 capital stock of which is held by 10 "stockholders" (actually trustees). When the association was reorganized, in 1903, these stockholders (then 5 in number) were chosen by the general membership. Since then they have been a self-perpetuating group, co-opting their members for 5-year terms from the students, faculty, and alumni of the various colleges of the university. In theory the participating members can nominate and elect these directors. In practice the stockholders do so, for the reason that nomination requires petition by 25 participants and election requires a majority vote at a meeting at which 10 percent of all participating members are present and voting. In 1941-42, this would have required an assembly of at least 614 participating members, all voting. Members' apathy is explained by the complex machinery involved, by the lack of cooperative understanding among the members, and by the eminent business success of the present arrangement. Through nomination, then, the stockholders control the selection of the board of directors and officers; however, they cannot themselves serve in these places. The whole organization is described as "an instrument of business in which one body checks another and in which there is a residual ownership but no man can find the owners."

In contrast to the Harvard association is the University of Texas Cooperative Society, started in 1896, whose bylaws provide for a non-stock association, \$1 membership fee, a single vote for each member, and a board of directors elected by the members and consisting of the president of the university, three faculty members (one elected each year) serving 3-year terms, and four student members serving 1-year terms. All of its clerks are students.

#### EDUCATIONAL WORK

As to educational work, 41 cooperative living associations reported that they had among the members one or more cooperative study or discussion groups which met regularly. These associations had a total of 81 such groups. A periodic, definite appropriation from earnings, to be used for educational work in cooperation was reported by 32 associations. Of these latter associations one reported that 5 percent of the net earnings and all of the \$1 membership fee was used for educational work and another appropriated 3 percent of earnings for this purpose. Some of the cooperative houses have a regular schedule of speakers on cooperation and other subjects.

Comparatively few of the bookstores, especially of the older associations, manifest any awareness of the social implications of their enterprise or do any educational work along cooperative lines. Only 7 had any study or discussion groups going on (1 each), and 10 made some regular appropriation for educational work. Only 1 bookstore reported as to amount used for this purpose; that association set aside a sum equal to 1 percent of net sales.

#### *Problems of Cooperatives*

Each association was asked to report its major problems. Among those common to both the bookstores and the housing associations were (1) insufficient space in present quarters and the difficulty of obtaining suitable quarters elsewhere near the campus; (2) insufficient

capital, for operation at present level or for needed expansion, (3) obtaining efficient management, (4) obtaining continuity of management and administration, (5) obtaining efficient paid nonstudent labor, (6) a student body (and therefore membership) too small to provide a volume of business large enough for profitable or efficient operation, (7) loss of members to war service, (8) extension of credit, and difficulties in collection of accounts, (9) success of organization dependent on a very small group of members, (10) lack of interest in the association, among the membership and/or among the students, and (11) obtaining a really effective program for inculcating the cooperative philosophy and viewpoint on the campus.

Problems reported only by the book and supply associations were (1) too high operating costs in proportion to volume, (2) getting funds to pay bills in time to obtain discount, and (3) obtaining stocks of goods.

The greatest problems peculiar to the rooming and boarding associations were (1) maintenance of house capacity, and consequently, of low pro rata costs, (2) rents for suitable quarters too high, (3) rising costs of food, (4) getting sufficient variety and balanced diet in low-cost meals, (5) maintaining decent living standards on what the members can afford to pay, (6) inability to estimate costs, in view of rapid membership turn-over and rising or fluctuating prices; and (7) getting the residents to cooperate fully in the duties of the house.

Aside from the practical problems connected with the actual carrying out of the enterprise, the lack of education in cooperation appears to be at the root of the difficulties experienced by a large proportion of the associations. All types of associations report that most of their members join in order to reduce school expenses rather than because of any knowledge of or interest in the cooperative movement. Some of the students may be of the irresponsible type or may not have reached the stage of interest in social questions. Although, as one writer noted, "the financial nonchalance of many college students frequently changes to penny discrimination"<sup>7</sup> after a sojourn in a cooperative house, their interest may still be financial only, with no conception of the wider aspects of the association's activities. Further, in view of the many calls upon the individual student's time—especially if he is living in a cooperative house and sharing the work there, carrying his school subjects, and possibly earning part of his expenses by outside jobs—any activity necessitating the expenditure of further effort is likely to be neglected. And this appears to be the case regarding cooperative educational efforts in a very large segment of the student cooperative movement. Many of the associations have regular educational committees and some carry on sustained educational work, but these are decidedly in the minority. This, however, is not surprising, in view of the relative youth of the campus cooperative movement.

### *Relations With Other Cooperatives*

Such relations with other cooperatives as are maintained are generally carried on by the housing cooperatives rather than by the bookstores. The study disclosed that some of the latter were affiliated

<sup>7</sup> Fred E. Luchs in *The Social Frontier* (New York), April 1938, quoted in *The Cooperative Consumer* (North Kansas City), May 23, 1938.

with the National Association of College Bookstores, not a cooperative organization. A very few were buying some books—generally not textbooks—from the Consumers' Book Cooperative in New York City. In contrast, there is a well-defined trend on the part of the housing cooperatives toward affiliation not only with student federations of cooperatives, but also with federations in the consumers' cooperative movement proper.

*Affiliation with student cooperatives.*—In at least five universities (Chicago, Michigan, Missouri, Texas, and Wisconsin), where a number of student living organizations exist, intercooperative councils have been formed for educational purposes, exchange of experience, and working out mutual problems, or for undertaking specific services such as joint purchasing, making contracts for supplies or services, etc. To these some or all of the local campus cooperatives are affiliated.

At the University of Michigan the Inter-Cooperative Council, formed in 1937, serves a variety of purposes. It is a policy-making body, with standing committees on purchasing, personnel, education, accounting, and social and athletic affairs, as well as special committees formed from time to time to deal with specific problems or situations. Each committee is composed of the members of the corresponding committee of the member associations. Thus the purchasing committee deals with the large-scale purchasing of staple articles used in all of the houses; such as coal, soap, canned goods, sugar, household linen, milk, etc., and according to report has been able to make "substantial savings." The personnel committee handles all applications for membership in the member houses, conducts the interviews, and assigns the applicants to the various associations on the basis of the needs of the applicant and of the houses. It is said that this method eliminates undesirable competition for members by the associations and tends to equalize membership on the basis of house capacity. The social committee arranges intercooperative dinners, dances, and other parties as well as the annual picnic. The accounting committee assists the member associations in the book-keeping policies and also supervises a loan fund from which non-interest-bearing loans are made to member houses; this fund is made up of money from surpluses from the older and more prosperous associations, mainly for the purpose of aiding new associations to get started.

At the University of Texas a representative from each cooperative house serves on a central council, one of whose duties is to obtain bids from local suppliers and place orders for all the cooperatives. In Montana State College, there is no formal federation of cooperative houses, but orders are pooled and supplies bought together by the associations.

On several campuses the fraternities have a joint buying cooperative through which some of the housing cooperatives do their buying.

Some of the student associations are affiliated with the regional student educational leagues, of which there are three: The Pacific Coast Student Cooperative League, the Midwest Federation of Student Cooperatives, and the Central League of Campus Co-ops.

The Midwest Federation, dating from 1939, was the first regional league of student cooperatives to be formed. Its territory covers Illinois, Indiana, Michigan, Minnesota, and Wisconsin. The Pacific Coast Student Cooperative League traces its beginning to a conference



held in March 1940. Its membership is drawn from universities and colleges in California, Oregon, Washington, Idaho, and Montana.<sup>8</sup> In November 1940 the Central League of Campus Co-ops was formed with a territory covering 13 Central States. Its present membership consists of educational institutions in Missouri, Kansas, Texas, Iowa, and North Dakota.

These regional bodies are all loose federations of local cooperatives and are, in turn, affiliated with the National Committee on Student Cooperatives formed in 1935 as an aftermath of the Student Volunteer Convention of that year. The Committee has been carried on largely as the result of the efforts of Mr. William Moore.

*Affiliation with cooperatives serving the general consumers' cooperative movement.*—Apparently, relations between the student cooperatives and the general consumers' cooperative movement are still comparatively meager. This is probably due to the fact that students join cooperatives quite largely through economic necessity rather than from any awareness of cooperative philosophy or acceptance of it. A certain proportion of the student cooperative membership understands and is familiar with what is going on in the general consumers' cooperative movement and wishes to bring about closer relations with that movement. It is undoubtedly this segment of the student cooperative movement that is responsible for the group of associations reported as affiliated to general regional and other consumers' cooperative organizations.

Generally the campus cooperatives that had manifested their cooperative awareness by affiliation with the regional student leagues were also those that had joined general cooperative federations. Some of the consumers' cooperative wholesales are endeavoring to foster relations with the student cooperatives and are making available to them their services in the bookkeeping, legal, and educational fields.

<sup>8</sup> This league has been admitted to membership in the Cooperative League of the U. S. A.—national educational body of the consumers' cooperative movement.

## Education and Training

### TEACHING OF NEGRO HISTORY IN CHICAGO PUBLIC SCHOOLS

NEGRO history has recently been included in the regular program of social studies for all the Chicago public schools.<sup>1</sup> This action is believed to be unique in the United States as regards city-wide, public-school study of the Negro's contribution to America. The program will, it is expected, serve as the source of information not only to Negro youth but to youth in general, improve interracial relations, and prove of educational value since any addition to the knowledge of historical facts benefits all races. The inclusion of Negro history in public-school curricula has been urged for a long time by many agencies and organizations in the belief that the school, being the chief agency of social improvement, is the best place to improve interracial attitudes.

This Chicago plan of study was initiated in March 1941, when the superintendent of schools of the city appointed two elementary-school teachers to gather, assemble, and edit the factual material about Negro achievement to be included in the public-school curriculum. These teachers were relieved of all teaching duties and devoted their entire time for 18 months to this subject and work.

Material was gathered through research at the Chicago public library, the libraries of the University of Chicago and Northwestern University, the Field Museum, and the Chicago Art Institute, and by correspondence. A committee appointed by the city superintendent of schools supervised the research and examined critically the material gathered, and sections thereof were submitted to Dr. Carter G. Woodson and professors at Northwestern University, Howard University, the University of Illinois, and the University of Chicago, for approval, correction, and suggestions.

After comprehensive reading and the consideration of the courses of study in social science, allocation of the material to grades was made.

In the first three grades (grades 1 to 3) community life is studied and the children learn about Negroes in various occupations. Stories for these grades show the Negro not only as private and public servants, but as educators, musicians, and scientists. Dahomey, Africa, which typifies a high degree of West African culture, is presented in a unit in grade 3.

In grade 4 Negro inventors in the field of clothing and electricity are presented; in grade 5B Chicago's first Negro pioneer settler, Jean Baptiste Point de Saible; in grade 5A, Virginia plantation life; in grade 6B, Negroes in discovery and exploration; and in grade 6A, Africa. In grade 7B, Negroes during the Revolutionary period is the subject studied; in grade 7A, the Negro during the Civil War period;

<sup>1</sup> The Crisis (New York), February 1943 (p. 51).

in grade 8B, Negroes in military life; and in grade 8A, contemporary Negro leaders in Chicago. Negroes in art, music, and literature are included in each grade as nearly as possible in relation to the period in which they lived.



## ENGINEERING CADETSHIP TRAINING IN GREAT BRITAIN<sup>1</sup>

UNDER the sponsorship of the British Ministry of Labor and National Service, boys are being offered training in engineering, leading to technical commissions in the fighting forces. Cadets for the course are chosen from the age groups 16, 17, 18, and 19. Originally they were permitted to apply, provided (1) that they left school before October 1942; (2) that they were not employed in any branch of engineering; and (3) that they had obtained at least the school certificate with a credit in mathematics or general science or physics, or (in the case of boys from Scotland) had obtained the senior leaving certificate or satisfactorily completed not less than 4 years of an approved senior leaving certificate course, and had in either case shown proficiency in mathematics or science (including physics) or technical subjects. However, the Minister of Labor stated in the House of Commons on November 26, 1942, that a boy need not have been given a school certificate to be accepted for cadetship, provided he had reached the necessary standard of knowledge of mathematics or general science or physics.

Establishment of the course is a recognition that this is an engineers' war, and that an adequate supply of technical officers is vital. Immediate needs for specialized engineering manpower are being met from the existing sources, and the scheme for engineering cadetships was adopted to provide for future requirements. Every successful cadet will be viewed by the Government as being equipped to give outstanding service in the war and to obtain for himself a foundation for a professional career in peacetime.

Applicants are interviewed by a selection board on which the Army, Navy, and Air Force are represented. Boys deemed fitted for cadetships are accepted subject to medical examination. Those who are accepted must agree in writing to complete their training, and their parents or guardians are required to countersign.

Training of cadets is carried on under the direction of the education departments. As far as possible, each cadet attends a technical college near his home. During training he is a member of one of the preservice organizations or of the Home Guard. Membership in a particular organization will not, however, necessarily determine the service in which the cadet will be commissioned on completion of his training.

As a rule, training is to continue up to the age of 20 years, but will depend upon the progress and conduct of the individual. Both the length and the character of the boy's training will be adjusted to his age and educational qualifications. In general, those aged 18 or 19 will attend training courses for from 18 to 24 months; cadets aged 17 will have 2½ years' training. Boys of 16 are to receive preliminary instruction at an appropriate institution. When grants of engineering

<sup>1</sup> Data are from Great Britain, Ministry of Labor and National Service, *Engineering Cadetships*, London 1942.



cadetships cease, a cadet who has not completed the course may be called upon to finish his training nevertheless. If he is not required to complete the course, but wishes to do so, his cadetship will be continued if he so desires. In addition to the payment of educational fees, the Government allows each cadet a maintenance grant of £140 a year (£160 in London) if he lives away from home, or £75 a year (in London £90) if he lives at home.

After completion of cadetship training, the successful trainee will enter one of the military services, where he will be given specialized instruction and will then be qualified for a commission as a technical officer.

# Labor Laws and Court Decisions

## RECENT DECISIONS OF INTEREST TO LABOR <sup>1</sup>

### *Applicability of Fair Labor Standards Act*

*STATUS of warehouse employees of wholesalers owning and operating warehouses and retail establishments.*—Additional light on the status of wholesalers under the Fair Labor Standards Act, which was the subject of consideration in the Jacksonville Paper Co. case,<sup>2</sup> was given in the case of *Walling v. American Stores Co.* (6 Wage Hour Rept. 180), decided by the Third Circuit Court of Appeals on February 11, 1943. The facts in the American Stores Co. case were quite similar to those in *Walling v. Goldblatt Bros.*, 128 Fed. (2d) 778 (C. C. A. 7), in which a contrary conclusion was reached and which the Supreme Court refused to review by certiorari, 63 Sup. Ct. 528 (1943).

American Stores, Inc., is a large enterprise in the general grocery business with central offices in Philadelphia and New York. It operates 11 warehouses in 5 States and the District of Columbia, 7 bakeries in 3 States, 2 canneries in Maryland, a coffee-roasting plant, an automobile-maintenance plant, a mechanical shop, a bottling works, and a large retail plant. It operates 2,300 retail stores in Pennsylvania, New Jersey, New York, Maryland, and the District of Columbia. Additional retail stores in other States are operated by subsidiary corporations. In 1939 its retail sales exceeded \$77,000,000. The warehouses serve the retail stores in designated zones. The Administrator claimed that the warehouse employees were covered by the Fair Labor Standards Act, but made no claim as to the coverage of employees in the retail stores. The company claimed that the warehouses, the processing plants, and the stores were part of one large retail establishment, and that all of its employees therein were excepted from the operation of the act by virtue of section 13 (a) (2), which states that the minimum and overtime wage provisions of the act do not apply to "any employee engaged in any retail or service establishment, the greater part of whose selling or servicing is in interstate commerce."

The Court of Appeals held, first, that although "the retail sale is the event from which defendant's income is derived," all of the processing and assembling of food products for sale "are part of a plan whose terminus is the retail sale over the counter to the consumer," and that although from the standpoint of business integration the enterprise may conceivably be an "establishment," it is not an "establishment" within the meaning of section 13 (a) (2) above

<sup>1</sup> Prepared in the Office of the Solicitor, Department of Labor. The cases covered in this article represent a selection of significant decisions believed to be of especial interest. No attempt has been made to reflect all recent judicial developments in the field of labor law nor to indicate the effect of particular decisions in jurisdictions in which contrary results may be reached based upon local statutory provisions, the existence of local precedents, or a different approach by the courts to the issue presented.

<sup>2</sup> 63 Sup. Ct. 332 (1943). For discussion of that case, see *Monthly Labor Review*, March 1943 (p. 493).

quoted. The court referred to the legislative history, which made it clear that the exemption was intended to apply to such enterprises as the local or "corner-grocery man," "druggist," "filling-station man," or even a "department store." The enterprise represented by the warehouses and processing plants of American Stores were held to be in an entirely dissimilar category, "whether the standards of comparison be economic, functional, or physical." In reaching this conclusion the court relied upon the Jacksonville Paper Co. case and referred to the Administrator's interpretation to similar effect.

Notwithstanding the Supreme Court's refusal to review the decision in the analogous Goldblatt Bros. case, and with knowledge of the decision of that Court in the Jacksonville Paper Co. case and *Higgins v. Carr Brothers Co.* (63 Sup. Ct. 337 (1943)), also involving a wholesale grocery company, the Court of Appeals decided that the warehouse employees are "engaged in commerce," and are therefore under the act. It was observed that goods from many States arrive at the warehouse by truck and railroad and are unloaded at receiving platforms, where they are recorded by clerks. They are then trucked to an elevator which unloads them at various floors, where they are stacked. As orders are received from the retail stores, they are assembled, taken to the loading platform, recorded, and shipped. The flow of goods through the warehouses is fairly even. Items "turn over" at varying rates of speed. The trial judge found as a fact that no one of the warehouses is the ultimate destination of the goods which pass through it.

After emphasizing the fact that the company was not an "independent" wholesaler, that the warehouses are maintained by the company for its convenience, in the interest of efficient distribution of the goods, and that the goods are not held for sale at the warehouse at a profit, the court concluded that there is a "practical continuity of movement" until the goods reach the company's retail stores and that the warehouse employees, therefore, are covered.

In the Goldblatt Bros. case, the facts in the record reveal that the enterprise operates warehouses which receive goods from many States, and from which the goods are dispatched to its own retail department stores in the State. The Seventh Circuit Court of Appeals had held in 128 Fed. (2d) 778 that "commerce" ended at the unloading platform of the warehouse. After deciding the Jacksonville Paper Co. case, the Supreme Court refused to review the decision of the Court of Appeals (63 Sup. Ct. 528). The American Stores Co. opinion, however, by observing that the Seventh Circuit Court of Appeals did not have the advantage of the guidance given by the Supreme Court in the Jacksonville Paper Co. and Carr Brothers Co., cases, suggests that the reason for that Court's refusal to review the Goldblatt Bros. case was based not so much upon an approval of the decision of the Seventh Circuit Court of Appeals as on a conviction that its Jacksonville Paper Co. opinion discloses the formula of interpretation that should be applied by the Court of Appeals and the District Court in the Goldblatt Bros. case in further proceedings in those courts. In view of the fact that the case had not been disposed of on all issues presented to the district court, the anticipation that further proceedings would be had was a reasonable one. It remains to be seen whether the courts below will reach the same result as the Third Circuit Court of Appeals in the American Stores Co. case.



*Coverage of guards in plants operating on Government account.*—The war-production program of the National Government has raised the question of the application of labor laws to plants operating exclusively on Government account. In *Timberlake v. Day & Zimmerman* (6 Wage Hour Rept. 208, 290, Feb. 4, 1943), the United States District Court for the Southern District of Iowa reached the conclusion that the Fair Labor Standards Act is applicable notwithstanding that all the products of the company involved were manufactured for and were delivered to the Federal Government.

Suit was instituted under the Fair Labor Standards Act for overtime wages claimed to be due thereunder. The plaintiffs were guards employed by the defendant company, which was engaged in the processing of war materials for the use of the armed forces at a Government-owned plant in Iowa, known as the "Iowa Ordnance Plant." The contract between the Government and the company provided that the company was an independent contractor; that the Government was to furnish the explosives, metal parts, and shipping materials; that all labor, material, tools, etc., were to be supplied by the company; that the title to all work completed or in process was in the Government; that upon delivery and acceptance by the Government, title to all materials, tools, equipment, etc., was to be in the Government; that labor was to be furnished by the company, subject to governmental supervision; and that the Government was to reimburse the company for all expenditures including the labor cost. The materials were generally shipped from outside the State to the ordnance plant, processed, and then shipped by the Government outside the State of Iowa.

After holding that guards are engaged in the "production of goods" in that they are employed in an occupation necessary to such production (section 3 (j)),<sup>3</sup> it became necessary for the court to determine whether goods manufactured at the plant came within the scope of the statutory language as having been produced "for commerce." The company contended that the goods were not processed "for commerce," as they were delivered to the Government at the site of the plant and within the State of Iowa, and any shipment therefrom was by the Government in its sovereign capacity in prosecuting the war. "Commerce," it claimed, pertains to relations between individuals or their representatives, and has nothing to do with transportation by a sovereign.

Notwithstanding dicta to the contrary in previous cases<sup>4</sup> the court held that the act applied even if subsequent transportation by the Government constituted an act of sovereignty. All that was necessary for the employees to prove was "that they were working in a vocation necessary in the processing of any article for transportation or transmission without the State." The regulation of commerce among the several States, it was observed, does not necessarily exclude regulation by the Government of its own activities as a sovereign to accomplish the stated purposes of the act. The company, therefore, is obliged to pay the overtime required by the act, and the Government, under contract, will be required to reimburse it in the amounts paid as part of the labor cost.

<sup>3</sup> Cf. *Johnson v. Dierks Lumber & Coal Co.*, 130 Fed. (2d) 115 (C. C. A. 8); *Walling v. Sondock*, 132 Fed. (2d) 77 (C. C. A. 5, certiorari denied, 63 Sup. Ct. 769); *Kirschbaum Co. v. Walling*, 316 U. S. 517.

<sup>4</sup> *National Labor Relations Board v. Idaho-Maryland Mines Corp.*, 98 Fed. (2d) 129, and *National Labor Relations Board v. Sunshine Mining Co.*, 110 Fed. (2d) 780, certiorari denied, 312 U. S. 678, both decided by the Ninth Circuit Court of Appeals.

*Cook employed by a timber company at its cookhouse.*—The Eighth Circuit Court of Appeals handed down a decision in the case of *Hanson v. Lagerstrom* (133 Fed. (2d) 120), with respect to a cook in a cookhouse maintained by an employer at a camp to feed employees cutting and skidding pulpwood sold locally to a paper company which converted the pulpwood into paper products sold throughout the United States. The employer claimed that the cook's activities and the cookhouse were not an indispensable part of its operations. The court held, however, that the cookhouse "was intended primarily for the benefit of defendant's logging employees and to increase his production operations." In holding that the cookhouse was not an exempt "retail or service establishment" within the meaning of section 13 (a) (2) of the act, the court's conclusion was in accord with that of the Ninth Circuit Court of Appeals in the Consolidated Timber Co. case.<sup>5</sup>

*Issuance of injunction notwithstanding discontinuance of violations.*—In drafting legislation such as the Fair Labor Standards Act, the anti-trust acts, the laws administered by the Securities and Exchange Commission, and the price-control laws, the problems of national enforcement frequently require the inclusion of provisions which authorize the enforcing agency to obtain court orders enjoining defendants from continuing acts which are alleged to be violations. Continued violations, in the face of such an order subject the offender to citation for contempt of court. The question frequently arises whether the court should issue the injunction, when the defendant claims that the violations were discontinued. Inasmuch as public, not private, interests are involved, the jurisdiction to issue the injunction is based upon a statute, and clarification of the meaning and scope of the legislation is a matter of importance not only to the Government but to the public which may be subject thereto, it has been held in several cases that where the violations were substantial and frequent, an injunction will issue notwithstanding the defendant's professions of good faith in discontinuing them.

In *Walling v. T. Buettner & Co.*, 133 Fed. (2d) 306, however, the Seventh Circuit Court of Appeals arrived at a contrary conclusion. The Administrator of the Fair Labor Standards Act sought an order enjoining the company from violating the act by paying its home workers wages below the minimum set forth therein. The company denied that its home workers were its employees, and asserted that if it violated the act it did so in good faith and in ignorance of wrongful conduct, and, in any event, that it had discontinued its home-work operations 1 week after the Administrator had commenced inspection of its plant and methods of operation, which was 2½ months before suit was instituted. It asserted that it had no intention of violating the act in the future.

The District Court granted an injunction. The Court of Appeals reversed this on the theory that the discontinuance of violations by the company was in "good faith" and "there is no evidence that the offense is likely to be repeated in the future."<sup>6</sup>

<sup>5</sup> See Monthly Labor Review, March 1943 (p. 491), for account of Consolidated Timber Co. case and *McLeod v. Threlkeld*, in which a contrary conclusion was reached.

<sup>6</sup> Contrary results were reached in *Fleming v. Cincinnati Union Terminal Co.*, 117 Fed. (2d) 1012 (C.C.A. 6); *Otis & Co. v. Securities and Exchange Commission*, 106 Fed. (2d) 579 (C.C.A. 6); *Securities and Exchange Commission v. Lawson*, 24 F. Supp. 360 (Md.); *Federal Trade Commission v. Goodyear Co.*, 304 U. S. 257. In *Walling v. Shenandoah-Dives Mining Co.* 6 Wage Hour Rept. 304, the Tenth Circuit Court of Appeals refused to issue an injunction on the ground that the controversy was moot notwithstanding the claim of the Administrator that violations continued 6 months after suit was instituted. The application of the antitrust laws to this problem is discussed in *United States v. Trans-Missouri Freight Ass'n*, 166 U. S. 290.

## Labor Relations and Industrial Disputes

### DECISIONS INVOLVING NATIONAL LABOR RELATIONS ACT

*Closed-shop agreement held in violation of act where employer assisted union.*—An interesting case involving the circumstances under which the negotiation of a closed-shop agreement constitutes a violation of the National Labor Relations Act was decided recently by the Third Circuit Court of Appeals. In *National Labor Relations Board v. John Engelhorn & Sons*, (12 L. R. R. 54, Mar. 1, 1943), Union A filed a petition with the National Labor Relations Board for investigation and certification of representatives at a plant in Newark, N. J. Thereafter Union A and the employer agreed to a consent election, which the union won. A contract renewable annually was then signed. Two years and 5 months afterwards rival Union B notified the employer that it represented a majority of the employees and requested a bargaining conference, which was refused. Union B, on May 13, 1941, informed the employer that it had petitioned the Board for investigation and certification of representatives. Six days later, 32 of the 48 employees went on strike, but Union A furnished 10 employees to keep the plant in operation. On May 29, 1941, Union A with knowledge of the pending Board proceedings signed a new closed-shop agreement with the employer, which was unanimously ratified by the employees on June 6, 1941. Three days later, Union B's petition for certification of representatives was granted by the Board and an election was ordered, which was won by Union B. The employer refused to bargain with Union B. The Board issued a complaint, and subsequently ordered the employer to cease and desist from the unfair labor practices involved (i. e., giving effect to the closed-shop agreement with Union A), to bargain with Union B, and to offer reinstatement to discharged employees. The Board petitioned the Circuit Court of Appeals for enforcement of its order.

The employer claimed the closed-shop agreement of May 29, 1941, made the subsequent election and certification of Union B ineffective. The court observed that although the proviso to section 8 (3) of the act provides that nothing in the act or other legislation shall preclude an employer from entering into a closed-shop contract, this provision is subject to the qualification that the labor organization must have been designated by a majority of the employees and was not "established, maintained, or assisted by any action defined \* \* \* as an unfair labor practice."

The Board had found that a foreman, on or about May 24, 1941, warned a workman that he and his fellow employees faced a plant shut-down and loss of their jobs unless they joined Union A. The worker was given membership applications and told to sign up other employees; he did obtain six or seven signatures. The evidence on this matter was held to support the Board's findings and to warrant the conclusion that the employer in violation of section 8 (1) interfered with, restrained, and coerced its employees in the exercise of the rights guaranteed them by section 7 of the act. The "quick execution" of the closed-shop agreement, moreover, at a time when the employer knew of Union B's claim that it represented a majority in the plant, was itself considered to be evidence of assistance to Union A.

In answer to the argument of the employer that the employees had unanimously ratified the closed-shop agreement, the court pointed



out that the foreman mentioned above and the employer's office manager who had negotiated the closed-shop agreement with Union A were present at the meeting. It was held, therefore, that the record supported the Board's finding that the ratification by the employees was attributable to the employer's conduct in assisting Union A, which constituted an unfair labor practice. Moreover, if the closed-shop agreement were to be sustained, Union A must have represented a majority of the employees at the time the agreement was made, and not afterwards. It appeared that this prerequisite was not established.

The court held the closed-shop agreement ineffective, notwithstanding threats of strike by Union A and of sympathetic measures to be taken by its affiliates, and the possibility that economic hardships might be visited upon the employer. These consequences, it was decided, do not excuse an employer from complying with the act.

*Right to deduct unemployment benefits from back pay.*—The National Labor Relations Board ordered an employer to pay to certain of its employees who were discharged by it in violation of the National Labor Relations Act, a sum "equal to that which they would normally have earned as wages" during a specified period, less "net earnings" during that period. The Supreme Court of the United States in *Marshall Field & Co. v. National Labor Relations Board* (63 Sup. Ct. 585), affirmed a circuit court of appeals decision denying the employer the right to deduct from the sum payable the benefits received by the employees under the provisions of the Illinois Unemployment Compensation Act. The Court held that the unemployment benefits were not "earnings" under the Board's order. It further held that the question of the authority of the Board to issue such an order was not properly presented to it, as section 10 (e) of the act requires objections to be urged before the Board if the employer desires to urge them on judicial review.

*Right to injunction against hearing on complaint of unfair labor practices.*—The United States District Court for the District of Oregon recently decided a case brought by two corporations under the control of the Kaiser interests (*Oregon Shipbuilding Corp. v. National Labor Relations Board*, 11 L. R. R. 802, Feb. 3, 1943). The companies sought to restrain the National Labor Relations Board from conducting a hearing in pursuance of a complaint, filed by the Board, charging the corporations with unfair labor practices in having entered into closed-shop contracts with unions affiliated with the American Federation of Labor. It was claimed by the corporations that two of the members of the Board were biased and had prejudged the case; and, further, that if the Board should decide as they feared it would, it would be impossible for them to abide by the closed-shop agreements; that this would subject them to strikes and conflict between the opposing unions; and that this, in turn, would disturb harmonious industrial relations and interfere with the prosecution of the war.

As to the bias of the members of the Board and the claim that the case was prejudged by them, the court pointed out that a firm position upon a question of law or fact taken in the early stages of a case by a judge does not constitute grounds to challenge his impartiality; and, furthermore, that the corporations had nothing to fear from a decision of the Board which is not self-executing, but which must be enforced by an order of the Circuit Court of Appeals—a procedure which assured the corporations a fair and impartial consideration of the case.

It was observed, however, that the corporations seemed apprehensive, not of the issuance of the Board order, but the consequences that would flow therefrom, and, particularly, competition for recognition by rival unions neither of which were before the court nor subject to its orders. The view was taken that, as a practical matter, there was no way in which the court could protect the corporations from the labor unrest or disturbance they feared might flow from a continuance of the Board hearings. It was observed, however, that the corporations were in no position to represent a disinterested public viewpoint, and that neither the United States nor the Maritime Commission, which let the contracts that the corporations were engaged in executing, had intervened for that purpose. Furthermore, the court discounted the fear expressed by the corporations that industrial strife resulting from an adverse Board order would interfere with vital war production, in view of the fact that the workers are an "indivisible part of the public," "making sacrifices and giving boys and girls to the armed services."

The Norris-LaGuardia Act was stated to create substantive rights in addition to prescribing procedures for the issuance of injunctions in labor disputes. As the complaint failed to set forth the statutory conditions for the issuance of an injunction in a labor dispute, and orderly administrative and judicial procedure are provided for the resolution of the controversy, the court held it would not usurp the jurisdiction which that act and the National Labor Relations Act were intended to deny it, and accordingly denied the application for the injunction.

#### THE CLOSED SHOP AND STATE PUBLIC POLICY

*Closed shop held to be in contravention of wartime policy of State.*—The closed or all-union shop has been the subject of considerable discussion in connection with the problems of war production. A recent case of considerable interest and importance in that connection has been decided by the Circuit Court of Hillsborough County, Fla. In *State of Florida ex rel. Watson, Atty. Gen. v. Tampa Shipbuilding Co.* (11 L. R. R. 837, Feb. 11, 1943), the State brought suit to have a closed-shop agreement between a shipbuilding company and a union declared invalid.

The contract between the parties required the business agents of the crafts concerned to send qualified persons to the company's plant when requested. If the business agents were unable to do so within 24 hours, the company might employ workers with the understanding that they must make application for membership in the appropriate union within 15 days after employment. If their membership was acceptable to the union, they were to remain as employees; if not, they were to be discharged. The company agreed to retain in its employ only union members.

The evidence in the case revealed that production at the plant had been satisfactory to the Navy; that there had been no strikes nor threats of strikes at the plant; that all of the products of the company were manufactured for the Navy and other agencies of the Government in connection with the war; that the contract, as far as it related to wages, hours, and other conditions of employment, was satisfactory to all parties; and that none of the other shipyards in the Gulf Region were operating under closed-shop contracts. The company itself took

no position for or against the closed shop and professed itself willing to abide by the decision of the court. It was not claimed that the contract was negotiated "by overreaching or duress"; the company asserted that it had been entered into voluntarily.

The intervening unions claimed that a nullification of the closed-shop provisions would violate constitutional guaranties.

The criterion for determining the issue, according to the court, was the current public policy of the State. It took the position that however much in accord with that policy the closed-shop provisions might have been when negotiated, they must be evaluated in the light of the conditions of war. It adverted to the many social and economic changes and dislocations that had recently taken place in the State as a result of the war and the sacrifice of many private interests in its prosecution. It then stated that the dominant consideration of all the citizens of the State, and of the State itself, was the welfare of the men in the armed forces, and that "any arrangement, economical or otherwise, that impedes or impairs—or has a tendency to do so—the production of the necessary transportation or quantity or quality thereof required to take these young men into the battle zone, or adversely affects production of equipment or supplies necessary to place him on an equal footing with his antagonists, has little place in the wartime economy."

The court then stated that many qualified persons had applied for employment at the company's shipyards, but had refused employment because of the requirement that they join the union; that there had been some dissatisfaction with the union, causing employees to seek work elsewhere in nonwar enterprises; that some employees were denied membership in the union because of previous antiunion activities; and that some had been expelled from the union. In short, the court was satisfied that a substantial number of witnesses were sincere in their testimony that the operation of the closed shop obstructed the securing or retention of employment.

The court referred to the manpower shortage in the area, and concluded that the closed-shop provisions of the contract before it impaired the war effort and were therefore in contravention of the public policy of the State.<sup>7</sup>

Reference was made to the sincerity, cooperativeness, and generally commendable behavior of the union officials.

### Unemployment Compensation

*State unemployment-compensation law applicable to employees in maritime pursuits.*—The respective spheres of Federal and State jurisdiction in the field of unemployment compensation, as well as compensation for industrial injuries, have been the subject of considerable litigation before administrative tribunals and the courts. The question has been of special interest in relation to workers on the borderline of Federal maritime jurisdiction. The latest decision in this field which is expected to go to the United States Supreme Court is *Great Lakes Dredge & Dock Co. v. Charlet* (3 Unemployment Ins. Serv. (P. H.) 29506). The Fifth Circuit Court of Appeals held, against constitutional attack, that the unemployment-compensation law of

<sup>7</sup> Accord, *State of Florida ex rel. Watson, Atty. Gen. v. Moore Pipe & Sprinkler Co.*, Circuit Court of Duval County, Fla., 11 Labor Relations Rept. 776, Jan. 27, 1943.



Louisiana applies to "shore crews" employed in the usual and customary way in the navigation and operation of dredges, pile drivers, and other appurtenances used for deepening and improving navigation channels and other navigable waters in Louisiana. The plaintiff sought a declaration whether it was obliged to contribute to the State unemployment fund, on the wages paid to such employees. It was charged that the State act, so applied, would contravene article 1, section 8, and article 3, section 2, of the Federal Constitution, giving to Congress exclusive power to legislate with respect to matters within the admiralty and maritime jurisdiction of the United States and depriving the States of all power to legislate thereon.

The Court of Appeals affirmed the District Court's judgment dismissing the action. The court pointed out that it has been held<sup>8</sup> that a workmen's compensation law applicable to the type of activities involved is required to be uniform throughout the United States, and that the legislatures of the various States are not competent to vary or modify it. The Jensen case rule, in the court's opinion, has been so whittled down by a long series of exceptions that the case before it might well be brought within the exceptions, rather than the rule. The court preferred, however, to base its decision on the ground that the statute is not a regulatory but a taxing act, in that it has no effect upon employment contracts as such, and leaves the parties exactly where they were in respect of every right and obligation which, viewed as maritime contracts, they grant and impose. The court reviewed the precedents holding valid State taxes on maritime activities and pursuits, and found no discriminatory or other objectionable characteristics which would warrant a determination that Federal constitutional rights are infringed.

The plaintiff also argued that the specific exception in the Federal Unemployment Tax Act of officers and members of a crew is such an expression of the will of Congress that it would be incompetent for States to include such individuals in supplementary State unemployment-compensation laws. In refusing to accept this contention, the court expressed itself to be in accord with the views expressed by the Court of Appeals of New York and the Supreme Court of New Jersey in *Claim of Cassaretakis*, 289 N. Y. 119, 44 N. E. (2d) 391, and *Shore Fishery v. Board of Review*, 127 N. J. L. 87, 21 Atl. (2d) 634, respectively.



## AMENDMENTS TO BOLIVIAN LABOR CODE, 1942<sup>9</sup>

THE labor code of Bolivia<sup>10</sup> promulgated as supreme decree of May 24, 1939, was, late in 1942, raised to the status of law by the National Congress of Bolivia. Three articles of the original decree were amended at the same time; these related to dismissal compensation, workmen's compensation, and prohibition of strikes. These changes are considered to be merely temporary, and are said to apply "until such time as the National Congress studies and approves the labor code" (evidently meaning thereby the draft code prepared by the

<sup>8</sup> *Southern Pacific v. Jensen*, 244 U. S. 205.

<sup>9</sup> Data are from report of Robert F. Woodward, second secretary of United States Embassy at La Paz and Legislación Boliviana del Trabajo y de la Previsión Social, by Gastón Arduz Eguiá (La Paz, 1941) pp. 295-319.

<sup>10</sup> See Monthly Labor Review, January 1940, pp. 105-114; reprinted in Labor Conditions in Latin America, No. 3 (B. L. S. Serial No. R. 1082), pp. 24-34.

special commission established by supreme decree of September 19, 1941,<sup>11</sup> to prepare such a code).

*Dismissal compensation.*—The provisions relating to dismissal compensation were amended (a) to provide that only the first 3 months worked shall be regarded as probationary for purposes of computing the employee's period of service; and (b) to allow salaried employees the privilege of receiving dismissal compensation upon voluntary retirement, after 15 years' service. The section, as amended, reads (in translation) as follows:

ARTICLE 13. When the salaried or wage-earning employee is retired for cause other than his own wish, the employer shall be required, apart from the dismissal, to indemnify him for the time of his service with an amount equivalent to 1 month's salary or wage for each year of continuous work; and if the service should not be so much as a year, an amount proportional to the months worked, with the exception of the first 3 months which shall be considered a probationary period (except in work contracts for a specified period of time, in which case there will be no preliminary time deduction). Only the first 3 months shall be considered a probationary period, and not any following preliminary periods which may result from resumption or postponement. If a salaried employee has had more than 15 years of service, and a wage earner more than 8 years, he shall be entitled to the indemnity, even though he retires voluntarily.

*Compensation for industrial injuries.*—The period for computation of average earnings for benefit purposes was changed to 90 days, as follows:

ARTICLE 91. The benefits [for industrial accident or occupational disease] shall be computed upon the basis of the average pay for the 90 days immediately preceding the day of the accident or the day on which the disease was declared to exist.

*Strikes in public services.*—Railroad and street-railway workers were exempted, by article 2, from the general prohibition of suspension of work "in services of a public character."

<sup>11</sup> Bolivia. Boletín del Ministerio del Trabajo, Salubridad, y Previsión Social, La Paz, June [actually published in October] 1941, pp. 288-289.

# Health and Industrial Hygiene

## HEALTH OF INDUSTRIAL WORKERS, 1942

HEALTH conditions among the many millions of wage earners and their families insured in the industrial department of the Metropolitan Life Insurance Co. remained excellent in 1942.<sup>1</sup> The mortality rate was 7.39 per 1,000, or very slightly less than the record rate of 7.44 reported in 1941. During the first three-quarters of the year a low mortality rate was reported month after month, but, beginning in October, the monthly rates were a fraction higher than those of the 2 previous years. It is apparent, it is said, that a rise in mortality is inevitable as the war continues. Such data as are available for the general population of the United States show the same trend, with the death rates for the last 3 months of 1942 somewhat in excess of those of the corresponding months of 1941.

The continued favorable mortality rate was due largely to the decline in death rates at the early childhood ages and at ages over 55. Rates exceeding those of the previous year occurred in the intermediate age groups, with the excess particularly marked in the age groups 15 to 19 and 20 to 24. Among white males in the latter age group the excess was almost 34 percent. This is the age group in which most of the deaths of military personnel occur; 41 percent of the deaths in this group were among military personnel and were from all causes, including accidents, disease, and enemy action. War deaths occurring from enemy action, of which there were 749 during the year, or a rate of 4.5 per 100,000, are of prime interest in the mortality picture of these policyholders. In addition to the battle casualties there are many accidental deaths which may be chargeable to the war. These include not only military personnel accidentally killed in training but also (although not as directly a result of the war) deaths from industrial accidents in war industries. These industries have been expanded so rapidly that large numbers of inexperienced workers not trained in safety measures have been brought into industry, with a resultant rise, during the year, in occupational accidents.

### *Rates for the Principal Causes of Death*

The communicable diseases of childhood might have been expected to increase during the war. In the last war extensive epidemics resulted from the concentration of large numbers of individuals who had not acquired immunity to these diseases in childhood. This does not seem to have occurred in the present war, however, at least among the industrial policyholders, as minimum rates were recorded

<sup>1</sup> Mortality Record for 1942. Metropolitan Life Insurance Co. Statistical Bulletin (New York), January 1943.



for scarlet fever, whooping cough, and diphtheria, while the rate for measles was very little above its previous low. Also, there was no serious outbreak of meningitis, such as occurred in the camps in the first World War.

Influenza and pneumonia, which caused more deaths among the armed forces than did battle casualties in the last war, played a minor role in 1942. The influenza rate of 4.2 per 100,000 was 44 percent below the previous minimum recorded in 1938. In that year the death rate from pneumonia was 50.6 per 100,000, whereas in 1942 the rate was only 29.4. The improvement in the mortality rate from pneumonia has been one of the outstanding features of the records each year, since the introduction of the newer forms of chemical and serum treatment. The decline in 1942 was less marked than in the preceding years, but it is considered that a point has been reached at which further improvement can be achieved only with exceptional effort.

The rate for deaths from tuberculosis was only 41.7 per 100,000 as compared with 42.8 the preceding year. This was a smaller decline than between 1940 and 1941, but it was twice that from 1939 to 1940. In other belligerent countries, even Great Britain, there have been marked increases in the mortality from this disease.

A health problem closely associated with the war is that of the venereal diseases. As the current mortality rates reflect their prevalence in earlier years, it is too early to judge the results of control measures, but the rate for syphilis in 1942 for industrial policyholders was the lowest on record. This indicates that the organized efforts to control the disease are proving effective.

The birth rate has risen sharply since the time when the draft of men for the armed services appeared probable, or from a level of 17 to at least 21 per 1,000 in 1942. This increase, which is a reaction to our entry into the war, helps to balance the war losses. Although the rise in the birth rate increases the number of women exposed to the hazards of childbirth, the puerperal death rate has declined continuously from 5.4 per 100,000 in 1939 to 4.5, a new low point, in 1942.

There was little change in the rates for the diseases of middle and later life in 1942. New highs were recorded for cancer and the diseases of the coronary arteries, but the rates for diabetes, cerebral hemorrhage, and "other chronic heart diseases," while slightly higher than in 1941, were well below their previous maximum rates. The rate for chronic nephritis—49.7 per 100,000—was a new low level for that disease.

The rate for mortality from all forms of accidents was the same as in 1941. The suicide rate was 5.3 percent lower than in that year but the homicide rate was 2.8 percent higher. Occupational accidents and accidents in public places increased, but there was a sharp reduction in deaths from motor-vehicle accidents as a result of the restriction of automobile travel.

The report for 1942 demonstrates, it is stated, the value of the health work of past years, as the decline in the mortality from the acute conditions counterbalanced the rise in war deaths and kept down the rate for the year.

# Labor Organizations

## TRADE-UNION MEMBERSHIP IN GREAT BRITAIN AND NORTHERN IRELAND, 1941

TRADE-UNIONS in Great Britain and Northern Ireland had a membership of 7,090,000 at the end of 1941. The number of members increased by 548,000, or 8.4 percent, over the previous year. Membership statistics are compiled by the Ministry of Labor and National Service<sup>1</sup> from data supplied by the Chief Registrar of Friendly Societies and the Registrar of Friendly Societies for Northern Ireland regarding unions registered under the Trade-Union Acts. In addition, the Ministry obtains information direct from unregistered organizations. Coverage extends to organizations of professional and salaried employees as well as wage earners, if their functions are known to include negotiation with employers for the purpose of regulating conditions of employment of their members. For organizations having headquarters in Great Britain and Northern Ireland, membership overseas is included; if the headquarters are elsewhere the entire membership is excluded. Members serving in the armed forces are included in the totals.

The number of unions and membership are shown in the following table for the years 1927 to 1941, by sex.

*Number and Membership of Trade-Unions in Great Britain and Northern Ireland, by Sex, 1927-41*

End of—	Number of trade-unions	Membership			Percent of change
		Males	Females	Total	
1927.....	1,159	4,125,000	794,000	4,919,000	-5.7
1928.....	1,142	4,011,000	795,000	4,806,000	-2.3
1929.....	1,133	4,056,000	802,000	4,858,000	+1.1
1930.....	1,121	4,049,000	793,000	4,842,000	-.3
1931.....	1,108	3,859,000	765,000	4,624,000	-4.5
1932.....	1,081	3,698,000	746,000	4,444,000	-3.9
1933.....	1,081	3,661,000	731,000	4,392,000	-1.2
1934.....	1,063	3,854,000	736,000	4,590,000	+4.5
1935.....	1,049	4,106,000	761,000	4,867,000	+6.0
1936.....	1,036	4,495,000	800,000	5,295,000	+8.8
1937.....	1,032	4,947,000	895,000	5,842,000	+10.3
1938.....	1,024	5,127,000	925,000	6,052,000	+3.6
1939.....	1,007	5,258,000	972,000	6,230,000	+2.9
1940.....	989	5,460,000	1,082,000	6,542,000	+5.0
1941.....	983	5,718,000	1,372,000	7,090,000	+8.4

The number of unions has declined steadily in the period covered by the table. Between 1940 and 1941 the number of organizations declined from 989 to 983. Nine unions with 1,900 members were dis-

<sup>1</sup> Data are from British Ministry of Labor Gazette for December 1942 (p. 210).

solved in 1941, and 4 organizations with 2,600 members at the end of 1940 were amalgamated with others. New unions formed in 1941 totaled 7 and had 1,100 members. Of the 983 unions at the end of 1941, 20 had their headquarters in Northern Ireland.

At the end of 1941, the number of male trade-unionists was 5,718,000—an increase of 4.7 percent over the previous year. The number of female members was 1,372,000—an increase of 26.8 percent for the year. The largest increases in male membership were in the engineering and metal industries. Female membership gained most in the general labor unions and the National Government services.

Duplication in the membership statistics was estimated by the Ministry of Labor as approximately 30,000 before the war, resulting from certain persons belonging to more than one organization. At the end of 1941 the duplication was probably greater, owing to the transference of large numbers of workers from industry to industry because of the war.

Over 55 percent of the 1941 membership was in 14 unions having 100,000 members or more. The 937 unions with under 25,000 members represented 21.6 percent of all trade-unionists. There were 19 unions having 25,000 and under 50,000 members, making up 9 percent of the total, and 13 unions with 50,000 and under 100,000 members who represented 14.1 percent of the total.

Federations of trade-unions in Great Britain and Northern Ireland totaled 56, with an approximate gross membership of 2,996,000 at the end of 1941 as compared with 56 and 3,090,000, respectively, at the end of 1940. Allowing for duplications in membership, the report here reviewed states that the net federated membership was approximately 2,467,000 at the end of both 1940 and 1941.



# Industrial Disputes

## STRIKES IN FEBRUARY 1943

BECAUSE of delays in getting information about strikes occurring in February, the usual monthly estimates were not available when this issue of the Monthly Labor Review went to press. Figures for February as well as for March will appear in the May issue of the Review.

## ACTIVITIES OF THE UNITED STATES CONCILIATION SERVICE, FEBRUARY 1943

THE United States Conciliation Service, during February disposed of 1,403 situations involving 606,623 workers (table 1). The services of this agency were requested by the employers, employees, and other interested parties. Of these situations 84 were strikes and lock-outs involving 42,058 workers; 716 were threatened strikes and controversies involving 302,804 workers. During the month 217 disputes were certified to the National War Labor Board, and in 55 cases other agencies assumed jurisdiction. The remaining 331 situations included investigations, arbitrations, requests for information, consultations, etc.

TABLE 1.—*Situations Disposed of by United States Conciliation Service, February 1943, by Type of Situation*

Type of situation	Number	Workers involved
All situations handled.....	1 1,403	606,623
Disputes.....	800	344,862
Strikes.....	82	41,818
Threatened strikes.....	113	93,745
Lock-outs.....	2	240
Controversies.....	603	209,059
Other situations.....	331	54,742
Investigations.....	89	7,575
Technical services.....	8	1,040
Arbitrations.....	71	19,658
Requests for information.....	10	19
Consultations.....	84	216
Special services of Commissioners.....	42	26,143
Complaints.....	27	91
Disputes referred to other agencies during negotiations.....	272	207,019
To National War Labor Board.....	217	162,577
To National Labor Relations Board.....	30	21,988
To other Federal agencies.....	8	16,866
To Wage Adjustment Board.....	4	1,500
To nongovernmental agencies.....	7	3,630
To State agencies.....	6	458

<sup>1</sup> During the month 88 cases involving 42,786 workers were adjusted, subject to arbitration or approval the wage provisions by the National War Labor Board.

The facilities of the Service were used in 28 major industrial fields, such as building trades, and the manufacture of foods, iron and steel, textiles, etc. (table 2), and were utilized by employees and employers in 48 States, the District of Columbia, and Puerto Rico (table 3).

TABLE 2.—Situations Disposed of by United States Conciliation Service, February 1943, by Industries

Industry	Disputes		Other situations		Total	
	Num- ber	Workers involved	Num- ber	Workers involved	Num- ber	Workers involved
All industries.....	1,072	551,881	331	54,742	1,403	606,623
Agriculture.....	6	45,500	3	18	9	45,518
Building trades.....	39	10,348	25	858	64	11,206
Chemicals.....	36	6,003	8	10,148	44	16,151
Communications.....	7	7,252	3	14	10	7,266
Domestic and personal service.....	30	7,461	7	559	37	8,020
Electrical equipment.....	31	18,208	7	3,138	38	21,346
Food.....	89	28,141	25	1,273	114	29,414
Furniture and finished lumber.....	35	7,805	8	616	43	8,421
Iron and steel.....	160	90,267	35	5,135	195	95,402
Leather.....	26	19,515	31	528	57	20,043
Lumber.....	18	1,826	9	516	27	2,342
Machinery.....	58	26,647	12	1,066	70	27,713
Maritime.....	13	2,465			13	2,465
Mining.....	9	2,219			9	2,219
Motion pictures.....	3	538	2	6	5	544
Nonferrous metals.....	40	32,712	11	4,514	51	37,226
Paper.....	16	5,400	2	1,112	18	6,512
Petroleum.....	17	1,802	7	1,790	24	3,592
Printing.....	23	3,381	2	141	25	3,522
Professional.....	7	2,651	1	20	8	2,671
Rubber.....	12	6,486	9	359	21	6,845
Stone, clay, and glass.....	37	21,146	11	4,451	48	25,597
Textile.....	55	61,609	33	5,760	88	67,369
Tobacco.....	8	6,101	4	41	12	6,142
Trade.....	73	16,530	15	841	88	17,371
Transportation.....	47	14,002	19	884	66	14,886
Transportation equipment.....	81	69,068	17	7,983	98	77,051
Utilities.....	27	11,355	4	178	31	11,533
Unclassified.....	69	25,443	21	2,793	90	28,236

TABLE 3.—Situations Disposed of by United States Conciliation Service, February 1943, by States

States	Disputes		Other situations		Total	
	Num- ber	Workers involved	Num- ber	Workers involved	Num- ber	Workers involved
All States.....	1, 072	551, 881	331	54, 742	1, 403	606, 623
Alabama.....	20	8, 687	2	175	22	8, 862
Arizona.....	5	453			5	453
Arkansas.....	7	2, 195	2	79	9	2, 274
California.....	69	14, 027	19	4, 550	88	18, 577
Colorado.....	5	475	2	46	7	521
Connecticut.....	9	11, 277	4	21	13	11, 298
Delaware.....	5	2, 352			5	2, 352
District of Columbia.....	10	827	2	298	12	1, 125
Florida.....	11	7, 703	6	335	17	8, 038
Georgia.....	11	4, 100	4	177	15	4, 277
Idaho.....	2	69			2	69
Illinois.....	100	28, 431	20	14, 124	120	42, 555
Indiana.....	47	19, 963	17	6, 306	64	26, 269
Iowa.....	11	2, 885	5	107	16	2, 992
Kansas.....	8	735			8	735
Kentucky.....	10	1, 269	2	211	12	1, 480
Louisiana.....	5	3, 509	7	278	12	3, 787
Maine.....	3	14, 750	6	558	9	15, 308
Maryland.....	11	6, 588	4	41	15	6, 629
Massachusetts.....	33	42, 773	33	2, 272	66	45, 045
Michigan.....	76	40, 379	25	1, 906	101	42, 285
Minnesota.....	17	5, 003	3	1, 161	20	6, 164
Mississippi.....	5	758	3	2, 454	8	3, 212
Missouri.....	37	13, 408	5	611	42	14, 019
Montana.....	2	155			2	155
Nebraska.....	10	3, 825	1	1	11	3, 826
Nevada.....	1	159			1	159
New Hampshire.....	6	703	10	234	16	937
New Jersey.....	48	17, 612	5	856	53	18, 468
New Mexico.....	4	222			4	222
New York.....	112	67, 029	30	4, 144	142	71, 173
North Carolina.....	18	11, 414	1	17	19	11, 431
North Dakota.....			1	26	1	26
Ohio.....	92	65, 772	20	3, 656	112	69, 428
Oklahoma.....	4	1, 134	5	674	9	1, 808
Oregon.....	13	2, 264	5	278	18	2, 542
Pennsylvania.....	97	50, 753	16	1, 073	113	51, 826
Puerto Rico.....	23	57, 939	27	280	50	58, 219
Rhode Island.....	3	257	3	1, 095	6	1, 352
South Carolina.....	8	3, 058	4	1, 993	12	5, 051
South Dakota.....	2	565			2	565
Tennessee.....	28	7, 242	7	2, 578	35	9, 820
Texas.....	10	5, 370	2	45	12	5, 415
Utah.....	3	1, 557	2	49	5	1, 606
Vermont.....	3	425			3	425
Virginia.....	16	5, 526	2	2	18	5, 528
Washington.....	17	1, 495	5	1, 382	22	2, 877
West Virginia.....	10	3, 486	6	286	16	3, 772
Wisconsin.....	19	11, 048	8	363	27	11, 411
Wyoming.....	6	255			6	255



# Cost of Living

## CHANGES IN LIVING COSTS IN LARGE CITIES, FEBRUARY 1943

LIVING costs of city workers advanced 0.2 percent during the month ending February 15, 1943, bringing the cost of living to a level 22.6 percent above that of August 15, 1939, the month before the outbreak of the war in Europe. The rise of 0.5 percent in food costs was primarily responsible for the advance over the month, but increases in service charges and higher coal prices also contributed to the rise.

The cost of goods and services under OPA control on February 15 remained unchanged. The cost of gas, electricity, and services controlled by other Government agencies declined 0.3 percent because of a sharp decline in rates charged for gas in Chicago, and prices of goods and services not under any form of governmental control increased 1.7 percent.

### Changes in Cost of Specified Items

**Food.**—The average increase for all foods from mid-January to mid-February was 0.5 percent. Prices of fresh fruits and vegetables rose as a result of increased buying because of short supplies of canned goods and in anticipation of rationing, effective March 1. The larger-than-usual seasonal decline of 13.5 percent in egg prices was primarily responsible for holding down the increase in food costs. The average cost of food other than eggs rose by 1.5 percent.

Reports from retailers indicate limited supplies of meats, butter, most canned fruits and vegetables, shortening, tea, and coffee. The Bureau's index of food prices does not completely reflect all the higher costs which are due to necessary shifts in buying different kinds of food or buying at higher-priced stores because of short supplies, which at the present time cannot be measured statistically.

**Clothing.**—Clothing prices remained unchanged, on the average, in the large cities of the country. Clearance sales brought decreases in men's and women's heavy woolen coats in many of the 21 cities covered in February. In several cities, however, these decreases were counterbalanced by the disappearance of articles of the quality previously priced, making it necessary to buy goods at higher prices. Relatively large increases in prices of men's work shoes were reported from three cities, and prices of men's suits rose in five cities.

**Housefurnishings.**—Housefurnishings costs rose 0.2 percent. The cost of blankets increased in several cities because blankets in the lower-price lines were not available. Prices of sheets rose in four cities and prices of living-room suites in two cities.

TABLE 1.—Percent of Change in Cost of Specified Articles of Clothing and Housefurnishings Purchased by Wage Earners and Lower-Salaried Workers in Large Cities

Article	Percent of change from—			
	Jan. 15, 1943, to Feb. 15, 1943	May 15, 1942, to Feb. 15, 1943	Feb. 15, 1942, to Feb. 15, 1943	Sept. 15, 1939, to Feb. 15, 1943
Men's clothing:				
Topcoats.....	-0.3	+0.4 <sup>1</sup>	+11.9	+21.6
Overcoats.....	-2.3	( <sup>1</sup> )	+10.5	+17.4
Wool suits.....	+4	-5	+9.1	+31.0
Work trousers, cotton.....	0	0	+5.8	+37.7
Overalls, cotton.....	0	-8	+3.7	+47.2
Work shirts, cotton.....	0	-7	+4.5	+51.2
Business shirts.....	0	+4	+4.5	+27.4
Street shoes.....	0	+4	+4.5	+28.6
Work shoes.....	+5	+5	+4.7	+32.7
Women's clothing:				
Fur-trimmed coats.....	-1.0	( <sup>1</sup> )	+10.2	+13.3
Heavy plain coats.....	-1.1	( <sup>1</sup> )	+10.8	+11.5
Wash dresses (percale).....	0	-1.8	+7.1	+64.4
Panties.....	0	-1.1	+3.3	+24.1
Shoes.....	+1	-4	+2.8	+14.2
Housefurnishings:				
Living-room suites, inexpensive.....	+1	+1	+1.3	+40.9
Bedroom suites, medium quality.....	-3	-6	+6	+24.0
Rugs, Axminster.....	0	-2	+1.8	+23.9
Sheets, 64 x 64 Construction.....	+9	-5	+3.8	+53.6
Blankets, wool.....	+2.9	( <sup>1</sup> )	+7.7	+27.2

<sup>1</sup> Data for May not available.

*Fuel, electricity, and ice.*—Coal prices went up in 18 of the 34 cities surveyed, as dealers passed on to their customers the transportation tax which became effective in December and readjusted their selling prices to allow for higher prices at the mine which were authorized in January. In New York City, where coal prices rose sharply from December 15 to January 15, there was a slight decline in February. Chicago gas rates were lowered by nearly 15 percent on the order of the State Commerce Commission.

*Miscellaneous.*—Increases in service charges of one kind or another were reported from a majority of the cities covered. They included advances in charges for medical services and hospital-room rates, higher charges for beauty- and barber-shop services, for motion-picture admissions, and increases in launderers' rates.

*Rents.*—Rents were not surveyed in February. Since September 1942, when rent control had become established in most large cities, rents have varied little from month to month in the 21 cities covered in the Bureau's monthly cost-of-living index. The Bureau's regular survey of rents will be made in March.

### Changes in Cost of Living in Specified Periods

The percent of change in the cost of living in each of the large cities on February 15, 1943, as compared with certain previous dates, is shown in table 2.

Table 3 gives the percent of change in the cost of each of the principal groups of items in the budget of wage earners and lower-salaried workers, by cities, in the month ending February 15, 1943.

TABLE 2.—Percent of Change in Cost of All Goods Purchased by Wage Earners and Lower-Salaried Workers in Large Cities

City	Percent of change from—			
	Feb. 15, 1942, to Feb. 15, 1943	Aug. 15, 1939, to Feb. 15, 1943	Jan. 1, 1941, to Feb. 15, 1943	May 15, 1942, to Feb. 15, 1943
Average: Large cities.....	+7.1	+22.6	+19.9	+4.2
New England: Boston.....	+7.1	+22.5	+20.0	+4.9
Middle Atlantic:				
Buffalo.....	+7.5	+26.8	+22.6	+3.7
New York.....	+8.2	+21.3	+18.9	+6.0
Philadelphia.....	+7.4	+22.1	+20.4	+4.1
Pittsburgh.....	+7.1	+22.8	+19.4	+4.3
East North Central:				
Chicago.....	+7.0	+21.9	+18.9	+3.3
Cincinnati.....	+6.5	+23.2	+20.4	+3.5
Cleveland.....	+7.4	+23.7	+21.3	+4.1
Detroit.....	+5.8	+24.0	+20.9	+2.8
West North Central:				
Kansas City.....	+6.8	+20.4	+20.6	+4.0
Minneapolis.....	+6.1	+20.0	+17.5	+3.2
St. Louis.....	+6.2	+22.2	+18.7	+3.7
South Atlantic:				
Baltimore.....	+6.4	+23.9	+21.4	+3.5
Savannah.....	+8.1	+27.1	+24.5	+4.4
Washington, D. C.....	+6.3	+20.7	+19.1	+3.7
East South Central: Birmingham.....	+4.2	+23.1	+19.4	+2.2
West South Central: Houston.....	+5.8	+19.8	+18.2	+3.8
Mountain: Denver.....	+7.6	+22.0	+20.3	+4.1
Pacific:				
Los Angeles.....	+7.2	+22.2	+19.8	+4.0
San Francisco.....	+9.1	+25.5	+22.4	+6.0
Seattle.....	+6.9	+25.6	+23.4	+4.0

TABLE 3.—Percent of Change Between January 15 and February 15, 1943, in Cost of Goods Purchased by Wage Earners and Lower-Salaried Workers, by Groups of Items

City	All items	Food	Clothing	Fuel, electricity and ice	House-furnishings	Miscellaneous
Average: Large cities.....	<sup>1</sup> +0.2	<sup>2</sup> +0.5	<sup>3</sup> 0	<sup>4</sup> -0.2	<sup>5</sup> +0.2	<sup>6</sup> +0.4
New England: Boston.....	0	-1	-0.4	+1	+1.0	+1
Middle Atlantic:						
Buffalo.....	<sup>7</sup> +2	<sup>8</sup> +6	-2	0	-2	+2
New York.....	+3	+2	-1	-1	+3	+9
Philadelphia.....	-3	-5	-2	0	+1	0
Pittsburgh.....	+1	+3	-7	0	+1	0
East North Central:						
Chicago.....	+6	+1.7	+4	-3.1	0	0
Cincinnati.....	+1	+1	-1	+7	+1	0
Cleveland.....	+5	+1.0	-1	+1	0	+6
Detroit.....	+9	+1.8	+1	+5	0	+1.2
West North Central:						
Kansas City.....	+8	+1.6	+1	+6	0	+4
Minneapolis.....	+5	+1.2	0	+2	-4	0
St. Louis.....	+5	+1.0	+6	+1	+1	+1
South Atlantic:						
Baltimore.....	-2	-9	+5	+3	+7	0
Savannah.....	+7	+1.1	+1	0	0	+1.1
Washington, D. C.....	-3	-1.2	+5	0	+5	+2
East South Central: Birmingham.....	+1	+2	-2	+1	+3	0
West South Central: Houston.....	+9	+2.3	+2	0	0	+2
Mountain: Denver.....	+6	+1.0	-1	+4	0	+6
Pacific:						
Los Angeles.....	<sup>9</sup> -7	<sup>8</sup> -1.6	0	0	0	-2
San Francisco.....	+1	+3	0	0	0	0
Seattle.....	+2	+3	-1	+1	0	+5

<sup>1</sup> Rents surveyed at quarterly dates—March 15, June 15, September 15, December 15.<sup>2</sup> Based on data for 51 cities.<sup>3</sup> Based on data for 21 cities.<sup>4</sup> Based on data for 34 cities.<sup>5</sup> Indexes for Buffalo revised: January 15, 1943—All items 124.6; food 137.3.<sup>6</sup> Indexes for Los Angeles revised: January 15, 1943—All items 123.7; food 141.8.



## Indexes of Cost of Goods

Indexes of the cost of each of the principal groups of items in the budget on February 15, 1943 (1935-39=100), by cities, are given in table 4.

Table 5 shows the indexes of cost of each of the principal groups of items for each of the years 1935-41 and by months from January 1942 through February 15, 1943.

TABLE 4.—Indexes of Cost of Goods Purchased by Wage Earners and Lower-Salaried Workers, by Groups of Items, February 15, 1943

[Average 1935-39=100]

City	All items	Food	Clothing	Fuel, electricity and ice	House-furnishings	Miscellaneous
Average: Large cities.....	<sup>1</sup> 120.9	<sup>2</sup> 133.6	<sup>3</sup> 125.9	<sup>4</sup> 107.1	<sup>3</sup> 123.9	<sup>3</sup> 113.5
New England: Boston.....	118.9	130.4	121.0	118.4	119.4	111.2
Middle Atlantic:						
Buffalo.....	124.9	138.1	126.3	105.0	124.8	120.4
New York.....	120.1	133.4	126.5	110.6	118.0	113.0
Philadelphia.....	119.4	129.6	125.5	105.2	122.4	113.7
Pittsburgh.....	120.8	133.8	127.1	109.8	121.6	112.6
East North Central:						
Chicago.....	120.3	132.1	121.3	101.3	119.6	112.2
Cincinnati.....	119.9	131.1	130.2	103.5	125.2	112.3
Cleveland.....	123.7	135.9	128.9	113.2	123.9	114.2
Detroit.....	122.1	132.3	127.8	108.0	120.8	116.8
West North Central:						
Kansas City.....	118.7	129.4	122.4	107.7	117.0	114.4
Minneapolis.....	119.6	130.7	126.1	100.0	123.8	115.0
St. Louis.....	119.9	134.4	127.2	106.4	116.4	111.1
South Atlantic:						
Baltimore.....	122.3	137.9	126.4	106.3	128.5	113.0
Savannah.....	126.2	141.3	127.7	112.5	119.9	117.1
Washington, D. C.....	119.0	132.2	132.3	105.8	129.6	115.9
East South Central: Birmingham.....	121.3	131.7	126.4	100.3	119.7	113.0
West South Central: Houston.....	120.6	137.9	125.9	93.2	122.2	112.2
Mountain: Denver.....	120.3	133.9	123.4	100.0	121.9	113.9
Pacific:						
Los Angeles.....	122.8	139.5	128.3	94.2	118.4	114.6
San Francisco.....	124.6	141.7	125.8	94.1	119.2	119.6
Seattle.....	126.0	143.9	128.0	100.7	119.6	120.4

<sup>1</sup> Rents surveyed at quarterly dates—March 15, June 15, September 15, December 15.

<sup>2</sup> Based on data for 51 cities.

<sup>3</sup> Based on data for 21 cities.

<sup>4</sup> Based on data for 34 cities.

TABLE 5.—Indexes of Cost of Goods Purchased by Wage Earners and Lower-Salaried Workers in Large Cities, 1935 to February 1943

[Average 1935-39=100]

Year	All items	Food	Clothing	Rent	Fuel, electricity, and ice	House-furnishings	Miscellaneous
1935.....	98.1	100.4	96.8	94.2	100.7	94.8	98.1
1936.....	99.1	101.3	97.6	96.4	100.2	96.3	98.7
1937.....	102.7	105.3	102.8	100.9	100.2	104.3	101.0
1938.....	100.8	97.8	102.2	104.1	99.9	103.3	101.5
1939.....	99.4	95.2	100.5	104.3	99.0	101.3	100.7
1940.....	100.2	96.6	101.7	104.6	99.7	100.5	101.1
1941.....	105.2	105.5	106.3	106.2	102.2	107.3	104.0
1942.....	116.5	123.9	124.2	108.5	105.4	122.2	110.9
Jan. 15.....	112.0	116.2	116.1	108.4	104.3	118.2	108.5
Feb. 15.....	112.9	116.8	119.0	108.6	104.4	119.7	109.4
Mar. 15.....	114.3	118.6	123.6	108.9	104.5	121.2	110.1
Apr. 15.....	115.1	119.6	126.5	109.2	104.3	121.9	110.6
May 15.....	116.0	121.6	126.2	109.9	104.9	122.2	110.9
June 15.....	116.4	123.2	125.3	108.5	105.0	122.3	110.9
July 15.....	117.0	124.6	125.3	108.0	106.3	122.8	111.1
Aug. 15.....	117.5	126.1	125.2	108.0	106.2	123.0	111.1
Sept. 15.....	117.8	126.6	125.8	108.0	106.2	123.6	111.4
Oct. 15.....	119.0	129.6	125.9	108.0	106.2	123.6	111.8
Nov. 15.....	119.8	131.1	125.9	108.0	106.2	123.7	112.7
Dec. 15.....	120.4	132.7	125.9	108.0	106.3	123.7	112.8
1943.....							
Jan. 15.....	120.6	133.0	125.9	108.0	107.3	123.7	113.1
Feb. 15.....	120.9	133.6	125.9	108.0	107.1	123.9	113.5

## INTERCITY DIFFERENCES IN COST OF LIVING, DECEMBER 1942

THIS article affords a rough comparison of the cost of a standard budget, at the "maintenance level," in 33 cities of the United States, as of December 15, 1942.

This is not an official budget of the Department of Labor, nor does it represent a recommended standard of living. It shows only the cost of approximately the same level of living and avoids differences resulting from variations in income, habits, and customs. The original budget was prepared in 1935 by the Works Progress Administration, and its cost in 59 cities in March of that year was computed by the Division of Social Research of that Administration. Since 1939 the figures have been kept up to date by the Bureau of Labor Statistics, using the regularly reported changes in retail prices in the cities covered by its cost-of-living indexes to estimate changes in the cost of this standard budget each quarter.

*WPA "maintenance" budget.*—The original budget covered goods and services which, the Works Progress Administration estimated, were needed by a 4-person family of an unskilled manual worker living at the "maintenance level." That level was described as above the "minimum of subsistence level," or "emergency level" of relief budgets, but below the standard of the skilled worker; it did not "approach the content of what may be considered a satisfactory American standard of living."

The hypothetical family to which the budget applies consists of a moderately active man wearing overalls at work, his wife, a boy aged 13, and a girl aged 8. No household help is employed. The family lives in a 4- or 5-room house or apartment with an indoor bath and toilet; has gas, electricity, and a small radio; uses ice for refrigeration; and has no automobile. The family members read a daily newspaper and go to the movies once a week. Their food is an "adequate diet at minimum cost." They pay for their own medical care. No savings other than life insurance are provided.

In 1935, the Bureau of Labor Statistics cooperated with the Division of Social Research of the Works Progress Administration in obtaining prices for an identical list of goods and services in each of 59 cities, with certain adjustments in fuel, ice, and transportation to take account of climatic and other local conditions.<sup>1</sup>

*Later revisions.*—The budget has never been completely repriced since 1935. In December 1938 a study of differences in living costs in northern and southern cities was made at the request of the Wage and Hour Division of the Department of Labor,<sup>2</sup> in which the budget was in part priced again in almost all of the cities and the food-cost budget was entirely recomputed in terms of the "adequate diet at minimum cost" of the U. S. Bureau of Home Economics. This diet provides greater variety than that originally used in the "maintenance" budget. In subsequent periods food costs have been recomputed, using current price data. For other parts of the budget, the current cost is estimated by using the changes recorded in the Bureau's

<sup>1</sup> Details of that study and a description of the goods and services included in the budget can be found in Works Progress Administration Research Monograph XII: Intercity Differences in Costs of Living in March 1939, 59 cities. The report also includes details of a more restricted budget at an "emergency" level; that budget has not been kept up to date by the Bureau of Labor Statistics.

<sup>2</sup> For article describing the survey, see Monthly Labor Review, July 1939.

regular indexes of changes in living costs from time to time.<sup>3</sup> These indexes are based on a budget composed of different qualities of goods and having a different relative importance from the Works Progress Administration "maintenance" budget. Because of these differences the cost figures resulting from application of the cost-of-living indexes to the "maintenance" budget are merely approximations of the actual current cost of that budget.

*Intercity differences, December 1942.*—In view of the changes in buying habits, particularly during the last 2 years, the "maintenance" budget as defined in 1935 is not entirely applicable to present situations. The figures are presented, however, for the convenience of those who find them useful, and in the absence of any better measure of comparison of living costs between cities.

Table 1 shows the estimated dollar cost of the "maintenance" budget in 33 large cities as of December 15, 1942. Table 2 presents these data as relatives on the basis of the cost in Washington, D. C., at that date as 100.

TABLE 1.—Estimated Cost of Living of 4-Person Manual Worker's Family at Maintenance Level in 33 Large Cities, December 15, 1942

City	Total	Food	Clothing	Housing	Fuel and light	Furniture, furnishings, household equipment	Miscellaneous
Atlanta.....	\$1,579.96	\$628.42	\$197.24	\$291.25	\$96.87	\$36.62	\$329.56
Baltimore.....	1,594.49	642.99	206.58	254.94	107.32	44.58	338.08
Birmingham.....	1,542.35	628.77	212.58	243.58	74.79	38.15	344.48
Boston.....	1,660.81	633.20	206.90	272.06	151.71	39.18	387.76
Buffalo.....	1,598.13	631.87	212.26	259.74	113.61	40.14	340.51
Chicago.....	1,718.20	637.07	194.20	306.52	133.28	38.39	408.74
Cincinnati.....	1,611.89	629.28	222.75	276.30	98.17	43.40	341.99
Cleveland.....	1,690.24	631.26	222.42	304.24	116.03	40.52	375.77
Denver.....	1,548.76	610.50	201.87	243.27	114.52	39.22	339.38
Detroit.....	1,722.51	631.18	210.75	324.95	123.49	38.17	393.97
Houston.....	1,540.00	603.31	197.62	249.78	85.39	40.72	363.18
Indianapolis.....	1,553.58	604.92	195.90	253.91	99.93	40.45	358.47
Jacksonville.....	1,593.85	659.71	184.19	237.03	113.53	39.49	359.90
Kansas City.....	1,505.59	607.12	207.20	220.41	111.69	38.87	320.30
Los Angeles.....	1,602.04	622.26	209.50	250.33	71.07	41.11	407.77
Manchester.....	1,634.23	665.90	194.75	200.75	180.93	39.02	352.88
Memphis.....	1,597.95	621.88	227.18	287.38	89.97	42.65	328.89
Milwaukee.....	1,650.82	611.57	175.28	304.15	128.10	38.14	393.58
Minneapolis.....	1,659.69	623.92	203.24	310.98	140.53	38.84	342.18
Mobile.....	1,453.85	633.39	196.27	193.48	83.65	40.16	306.90
New Orleans.....	1,546.07	654.67	205.63	215.06	70.88	45.06	354.77
New York.....	1,757.86	680.84	206.96	311.04	128.35	41.08	389.59
Norfolk.....	1,651.72	656.22	216.76	261.94	112.45	41.85	362.50
Philadelphia.....	1,600.96	640.94	210.42	265.09	106.22	39.96	338.33
Pittsburgh.....	1,641.78	641.99	209.60	291.68	95.90	40.52	362.19
Portland, Maine.....	1,636.08	655.84	201.18	212.00	167.03	39.94	360.09
Portland, Oreg.....	1,640.74	665.13	196.31	205.86	161.59	40.93	370.92
Richmond.....	1,588.79	608.78	212.19	256.62	108.73	42.16	360.31
St. Louis.....	1,655.02	647.89	201.07	296.38	114.13	43.06	352.49
San Francisco.....	1,758.44	673.78	210.20	291.78	87.18	43.55	451.95
Scranton.....	1,611.24	644.72	200.27	264.71	98.26	36.62	363.66
Seattle.....	1,670.38	675.51	212.76	201.06	128.11	42.61	410.33
Washington.....	1,757.49	640.56	220.69	351.75	120.05	44.29	380.15

<sup>3</sup> The Bureau's indexes of changes in living costs from time to time measure changes in the cost of a budget representing actual family expenditures of a cross section of employed wage earners and clerical workers in each of 34 cities. Since these expenditures differ in each city, depending on incomes, local habits, etc., indexes based on them cannot be used to compare living costs between cities. Further information about these indexes may be found in Bulletin 699, "Changes in Cost of Living in Large Cities in the United States, 1913-41," available from the Superintendent of Documents, Government Printing Office, Washington, D. C., and monthly mimeographed reports issued by the Bureau of Labor Statistics, U. S. Department of Labor, Washington, D. C.



TABLE 2.—Indexes of Cost of Living of 4-Person Manual Worker's Family at Maintenance Level, in 33 Cities, as Percent of Cost in Washington, D. C., December 15, 1942

City	Total	Food	Clothing	Housing	Fuel and light	Furniture, furnishings, household equipment	Miscellaneous
Atlanta.....	89.9	98.1	89.4	82.8	80.7	82.7	86.7
Baltimore.....	90.7	100.4	93.6	72.5	89.4	100.7	88.9
Birmingham.....	87.8	98.2	96.3	69.2	62.3	86.1	90.6
Boston.....	96.2	98.9	93.8	77.3	126.4	88.5	102.0
Buffalo.....	90.9	98.6	96.2	73.8	94.6	90.6	89.6
Chicago.....	97.8	99.5	88.0	87.1	111.0	86.7	107.5
Cincinnati.....	91.7	98.2	100.9	78.6	81.8	98.0	90.0
Cleveland.....	96.2	98.5	100.8	86.5	96.7	91.5	98.8
Denver.....	88.1	95.3	91.5	69.2	95.4	88.6	89.3
Detroit.....	98.0	98.5	95.5	92.4	102.9	86.2	103.6
Houston.....	87.6	94.2	89.5	71.0	71.1	91.9	95.5
Indianapolis.....	88.4	94.4	88.8	72.2	83.2	91.3	94.3
Jacksonville.....	90.7	103.0	83.5	67.4	94.6	89.2	94.7
Kansas City.....	85.7	94.8	93.9	62.7	93.0	87.8	84.3
Los Angeles.....	91.2	97.1	94.9	71.2	59.2	92.8	107.3
Manchester.....	93.0	104.0	88.2	57.1	150.7	88.1	92.8
Memphis.....	90.9	97.1	102.9	81.7	74.9	96.3	86.5
Milwaukee.....	93.9	95.5	79.4	86.5	106.7	86.1	103.5
Minneapolis.....	94.4	97.4	92.1	88.4	117.1	87.7	90.0
Mobile.....	82.7	98.9	88.9	55.0	69.7	90.7	80.7
New Orleans.....	88.0	102.2	93.2	61.1	59.0	101.7	93.3
New York.....	100.0	106.3	93.8	88.4	106.9	92.8	102.5
Norfolk.....	94.0	102.4	98.2	74.5	93.7	94.5	95.4
Philadelphia.....	91.1	100.1	95.3	75.4	88.5	90.2	89.0
Pittsburgh.....	93.4	100.2	95.0	82.9	79.9	91.5	95.3
Portland, Maine.....	93.1	102.4	91.2	60.3	139.1	90.2	94.7
Portland, Oreg.....	93.4	103.8	89.0	58.5	134.6	92.4	97.6
Richmond.....	90.4	95.0	96.1	73.0	90.6	95.2	94.8
St. Louis.....	94.2	101.1	91.1	84.3	95.1	97.2	92.7
San Francisco.....	100.1	105.2	95.2	83.0	72.6	98.3	118.9
Scranton.....	91.7	100.6	90.7	75.3	81.8	89.5	95.7
Seattle.....	95.0	105.5	96.4	57.2	106.7	96.2	107.9
Washington.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0

## TREND OF COST OF LIVING AND WORKER INCOME IN ICELAND <sup>1</sup>

BY THE end of 1942 the cost of living in Reykjavik, Iceland, had risen to nearly 2½ the average cost in the period January–March 1939. On the basis of January–March 1939 as 100, the index was 272 in December 1942; nearly 100 points of this increase occurred during 1942, for in December 1941 the index stood at 177. The index of the cost of food alone rose from 100 in the first quarter of 1939 to 218 in December 1941 and 374 in December 1942.

Wages are known to have increased greatly but exact figures are not available and are, at any rate, of minor importance in the national economy, as the gainfully occupied of Iceland are to an unusual degree self-employed or working on shares. Savings-bank deposits, which amounted to 18,526,000 kroner <sup>2</sup> in January 1941 had increased to 37,404,000 kroner in August 1942.

Exports, consisting almost entirely of fish and fish oil, increased during 1942, rising from 178,401,000 kroner in 1941 to 193,953,000 kroner in 1942. Exports to Great Britain accounted for about 90 percent of the total.

<sup>1</sup> Data are from Iceland, Statistical Bureau and National Bank. Statistical Bulletin (Reykjavik). December 1942.

<sup>2</sup> Krone at par=25.4 cents.

# Wage and Hour Statistics

## WAGES IN AIRCRAFT-PROPELLER INDUSTRY, OCTOBER 1942<sup>1</sup>

### *Summary*

STRAIGHT time earnings of first-shift workers engaged in the manufacture of metal propellers for aircraft averaged \$1.075 an hour in October 1942. Male workers averaged \$1.10 an hour, as compared with an average of 82.2 cents for the comparatively small group of female employees. Occupational earnings for male workers above the learner grade ranged from an average of 77.2 cents an hour for laborers to \$1.364 for inspectors of tools, dies, and jigs. In the limited group of female occupations, average earnings ranged from 71.1 cents for janitors to 93 cents for subassemblers. The average earnings of male and female learners were 76.0 cents and 74.4 cents an hour, respectively.

Average hourly earnings for first-shift employees amounted to \$1.111 in the East and to \$1.037 in the Midwestern region. Entrance rates, shift premiums, and other factors affecting wages varied considerably among the plants in the industry.

These findings are the result of a study of wages in the metal-propeller industry made by the Bureau of Labor Statistics. The present survey constitutes one of a series of studies by the Bureau of wages in major divisions of the aircraft industry.<sup>2</sup>

### *Development of the Industry*

The recent spectacular growth of the aircraft-propeller industry is, of course, a direct result of the war. Until 1939 the industry had had a comparatively leisurely growth, paced by limited military demands and the gradual expansion of commercial air-transport facilities. This period of quiet development came to an abrupt end in the spring of 1940, after the President's speech of May 16 calling for an unprecedented increase in the Nation's air power.

A huge program of expansion in propeller-manufacturing facilities had to be undertaken immediately. Propellers of the types needed for the powerful motors of specialized military planes are difficult to fabricate. The need for high-speed production, combined with the exact machining and close tolerances required by automatic, constant-

<sup>1</sup> Prepared in the Bureau's Division of Wage Analysis by T. W. Reedy, under the supervision of H. M. Douty.

<sup>2</sup> Other reports now available are Bureau of Labor Statistics Bulletins 704 (Wage Rates in the California Airframe Industry, 1941) and 728 (Wage Rates in the Eastern and Midwestern Airframe Industry, 1942). A third report, Earnings in Aircraft-Engine Plants, May 1942, appeared in the Monthly Labor Review for December 1942 and is available as Serial No. R. 1505. A report on wages in aircraft-parts manufacturing is in preparation; an article on wages in the California division of this industry appears elsewhere in this issue of the Monthly Labor Review.

speed, controllable-pitch propellers, made the development of new manufacturing methods necessary as additional plants were built, tooled, and equipped. Many technical difficulties were overcome by the industry.

A special problem that arose with the great expansion of manufacturing facilities was that of obtaining a sufficient number of highly trained workers in metal-fabricating operations. Employees skilled in occupations common to propeller manufacture are not plentiful. When such workers were no longer available in the labor market, the industry began to employ more and more unskilled men and women. Time was lacking for the leisurely training programs and long apprenticeships of peacetime industry. The new employees had to be placed in productive occupations as quickly as possible. This has done much to speed the development of assembly-line techniques.

In practically all plants, the pattern of unionization found was the same as that which existed before expansion or conversion to propeller manufacture began. Employees in five of the plants included in this survey were organized by the International Association of Machinists, A. F. of L. Three plants were organized by C. I. O. unions—one by the United Steel Workers of America and two by the United Automobile, Aircraft and Agricultural Implement Workers of America. Five of the plants had no agreement with any union; of these, four were relatively small and one of moderate size. One company had an agreement with an unaffiliated union.

Four of the union and two of the nonunion plants are in the East; the remaining 5 union and 3 nonunion plants are in the Midwest.

### *Scope and Method of Survey*

The Bureau's survey covered 14 plants, which constituted virtually the entire metal-propeller industry in the fall of 1942. The scope of the survey did not extend to the manufacture of wooden propellers and test clubs, which are of relatively minor importance in the industry. Broad differences in productive processes and occupational patterns obviously exist between the manufacture of metal and of wooden propellers.

The basic data for this report were obtained by field representatives of the Bureau directly from pay-roll and other records of the plants included in the survey.

Occupational earnings, excluding overtime premium pay, were secured for first-shift workers for a representative pay-roll period in October 1942. The occupational data were confined to first-shift employees to expedite the survey and to insure comparability between plants by eliminating wage differences arising from variations in the amounts paid to late-shift workers. Approximately 40 percent of the total number of workers employed in these plants on all shifts were covered by the occupational earnings data.

The occupational coverage is comprehensive, and is believed to reflect fully the occupational structure of the industry. Care was taken to secure uniformity of occupational reporting from plant to plant. A glossary containing job descriptions as well as job titles was issued for the general guidance of field representatives. The use of this glossary, coupled with the fact that all plants manufacture



essentially a common product, unquestionably resulted in close comparability, from plant to plant, of the various occupations scheduled.

In addition to occupational earnings, certain related types of information also were secured in the course of the survey, such as data on overtime-payment policies, shift practices, entrance rates, unionization, and aggregate employment, man-hours, and pay rolls.

### *Some Factors Affecting the Industry's Wage Structure*

The basic wage structure of the propeller-manufacturing industry is adequately reflected by the various occupational hourly rates paid to workers on the first (day) shift. These basic hourly rates, however, tend to be considerably lower than the average earnings per working hour. The reasons for this difference, and for the variations in plant wage patterns, are discussed below.

#### ENTRANCE RATES

Minimum entrance rates for unskilled employees in this industry ranged from 50 to 80 cents an hour in the 14 plants surveyed. At the time of the survey, 3 of the 14 plants started both man and woman beginners at 50 cents per hour; 3, at 55 cents; and 4, at 60 cents. Four plants paid different entrance rates to men and women; in one of these the women started at 58 cents and the men at 68 cents, in two the women started at 60 cents and the men at 75 and 80 cents, respectively, and in the fourth women started at 64 cents and men at 74 cents.

Some provision for automatic advances from the entrance wage rate was found in all but 2 of the 14 plants surveyed. In most of these plants, the first automatic increase amounted to 5 cents per hour, generally after 1 month of employment. Provisions for later increases in pay varied widely, although two additional automatic increases were reported as being given in most plants without reference to merit raises or job reclassification.

There appears to be no consistent relationship between size of plant or unionization, and the entrance rates paid. As between regions, a somewhat wider range existed in the Midwest, with entrance rates varying from 50 to 80 cents for male employees, and 50 to 60 cents for females. Entrance rates in the East were 55 or 60 cents for both male and female workers.

#### USE OF INCENTIVE WAGES

The payment of bonuses based upon production was reported in 8 of the 14 plants surveyed by the Bureau. Both individual and group bonuses were used. In a small number of plants, bonuses were also paid to nonproductive workers. In an additional 3 plants, certain limited groups of workers (such as grinder or machine operators) were paid by the piece, with a guaranteed minimum. No form of incentive-wage system was found in 3 of the plants scheduled.

All plants in the East had bonus systems. In the Midwest, in addition to the 3 plants making limited use of piece rates, 2 plants paid production bonuses to their employees and 3 plants reported no incentive system of any kind. No community-size or union relationship apparently accounted for these differences.

## OVERTIME-PAYMENT PRACTICES

Time and a half was paid for work after 8 hours in any day or 40 hours a week, in all plants. Thirteen of the 14 plants reported that workers were compensated at time and a half for holiday work. The sixth consecutive day was generally paid for at the time and a half rate, while (except in one plant) the seventh consecutive day was paid for at double time.

## SHIFT EMPLOYMENT AND DIFFERENTIALS

All of the plants surveyed reported the operation of 3 full shifts. Of the total number of male workers employed at the time of the survey, 44.8 percent worked on the first (day) shift, 31.8 percent on the second or evening shift, and 23.4 percent on the third shift. The distribution of female employees by shift is somewhat different, primarily because of a smaller proportionate number on the third shift. Almost 48 percent of the female workers were on the first shift, 36.2 percent on the second, and 16.1 percent on the third.

Considerable variation was found from plant to plant in the proportion of the total number of employees working on the third shift, the range being from somewhat over 5 percent in one plant for both male and female employees to almost 30 percent for males and 28 percent for females in another. Slightly more than one-fifth of all employees in the industry worked on the third shift.

As table 1 shows, 7 different rates of premium payment for work on the second and third shifts were found in the 14 plants. These rates ranged from 2 cents an hour to 10 cents an hour for both shifts. In addition to specified premium rates, 3 plants gave 8 hours' pay for 6½ hours' work on the third shift. In three plants, the premium rate was based upon a percentage of wages paid rather than on a cents-per-hour rate. In every plant surveyed, some form of shift differential was paid.

TABLE 1.—*Wage Differentials for Second- and Third-Shift Employees in 14 Aircraft-Propeller Manufacturing Plants, October 1942*

Number of shifts worked	Number of plants	Differential paid for—	
		Second shift	Third shift
Plants with 3 shifts.....	3	Base rate plus 10 cents per hour..	Base rate plus 10 cents per hour.
	3	Base rate plus 7½ cents per hour..	Base rate plus 7½ cents per hour. <sup>1</sup>
	2	Base rate plus 5 cents per hour..	Base rate plus 5 cents per hour.
	2	do.....	Base rate plus 10 cents per hour.
	3	Base rate plus 5 percent.....	Base rate plus 5 percent.
	1	Base rate plus 2 cents per hour..	Base rate plus 2 cents per hour.

<sup>1</sup> One plant in this group gives 8 hours' pay for 6½ hours' work.

### *Movement of Hours and Earnings, 1941 and 1942*

Table 2 provides a broad picture of changes in the length of the average workweek and in gross average weekly and hourly earnings for selected months in 1941 and 1942. These data are based upon the aggregate employment, man-hours, and pay rolls of the plants reporting. The earnings data reflect overtime-premium payments and shift premiums. It will be observed that only for the October 1942 period

were all 14 plants represented. However, data for the 7 plants represented continuously from January 1941 show practically the same picture in October 1942 as for the larger total of 14 plants.

Between January 1941 and October 1942, the gross average weekly earnings of employees of the propeller-manufacturing plants represented in table 2 increased from \$35.66 to \$60.56, or nearly 70 percent. Gross average hourly earnings increased from 82 cents to \$1.184 during the same period, or slightly more than 44 percent. During the 10 months from January to October 1942, gross average weekly earnings remained relatively constant although the level of weekly hours fell slightly. This is explained in part by the wage-rate increases that occurred during the period. It seems safe to assume, moreover, that the downward pressure on the average level of earnings that presumably was caused by expansion of the labor force during this period was more than offset by general, automatic, or merit wage adjustments. Average hourly earnings increased by 4.3 cents during the 10 months ending in October 1942.

TABLE 2.—Average Weekly Earnings and Hours, and Average Hourly Earnings in Aircraft-Propeller Industry, Selected Periods, January 1941–September 1942

Month	Number of plants	Average weekly earnings <sup>1</sup>	Average hours worked per week	Average hourly earnings <sup>1</sup>
January 1941.....	7	\$35.66	43.5	\$0.820
May 1941.....	8	42.53	47.8	.890
October 1941.....	8	49.79	48.9	1.018
January 1942.....	9	59.63	52.3	1.141
May 1942.....	9	59.71	51.5	1.160
October 1942.....	14	60.56	51.2	<sup>2</sup> 1.184
Identical plants:				
January 1941.....	7	35.66	43.5	.820
October 1942.....	7	60.60	50.8	1.193

<sup>1</sup> Including overtime-premium and shift-differential payment.

<sup>2</sup> This average should not be confused with the average straight-time hourly earnings for first-shift workers for October 1942 shown in table 3.

Only 7 of the 14 plants included in this survey are known to have been in regular operation in January 1941. Five of these 7 plants reported general increases in wage rates between that date and October 1942, the increases ranging upward to as much as 35 cents an hour. Two plants reported no specific general increases; in one of them, some individual wage adjustments occurred and in the other numerous adjustments were made in specific piece-work rates. In the latter plant, the increase in average hourly earnings between the two periods indicates that such adjustments were of considerable importance.

### *Earnings by Occupation, October 1942*

The basic wage data derived from the survey consist of average hourly earnings, exclusive of premium pay for overtime, for first-shift workers classified by occupation. These data, which relate to October 1942, are summarized in table 3. Selected occupations are set forth in detail in table 4.

In October 1942, as table 3 shows, the straight-time earnings of all first-shift employees in the metal-propeller industry averaged \$1.075 an hour. Male employees averaged \$1.10 an hour, while the average



for women was 82.2 cents. These averages include data for learners. The average for all experienced workers amounted to \$1.101 an hour—\$1.122 for men and 84.1 cents for women.

TABLE 3.—Average Straight-Time Hourly Earnings of First-Shift Workers in Aircraft-Propeller Industry, by Sex and Region, October 1942

Sex and region	Average hourly earnings of—		
	All employees	Experienced workers	Learners
All employees.....	\$1.075	\$1.101	\$0.756
Eastern region.....	1.111	1.149	.762
Midwestern region.....	1.037	1.051	.743
Male employees.....	1.100	1.122	.760
Eastern region.....	1.134	1.169	.755
Midwestern region.....	1.062	1.073	.772
Female employees.....	.822	.841	.744
Eastern region.....	.863	.887	.787
Midwestern region.....	.779	.798	.678

Table 4 shows average earnings in individual occupations in the industry as a whole and in each of the plants in which the occupations were found. Number of workers is not shown, because of necessary restriction upon the disclosure of certain types of information in time of war. The proportion that the number of workers in each occupation formed of the number of workers in all occupations is shown, however. Thus, the relative importance of the various occupations in the employment structure of the industry can be measured. Male polishers and buffers, for example, constituted about 5.3 percent of the employment; only two-tenths of 1 percent of the workers, on the other hand, were employed as screw-machine operators.

Grinder operators constituted the largest single occupational group included in the survey, with 5.4 percent of the total number of workers employed as cylindrical grinders, 5.2 percent as portable and bench grinders, and 1.0 percent as surface grinders. With the exception of polishers and buffers (5.3 percent), no other occupation included as many as 5.0 percent of the employees surveyed. The largest number of female workers (1.7 percent of the total for both sexes) were employed as inspectors of machined parts, and 1.3 percent were employed as rough burrs and filers.

Average straight-time hourly earnings for experienced male workers for all plants combined ranged from a high of \$1.364 for inspectors of tools, dies, and jigs to 77.2 cents for laborers in the production department. Thirty-eight male occupations, in which 67.8 percent of all first-shift employees were found, had average earnings of \$1.00 or more an hour. The range of occupational averages for female employees was from 71.1 cents for janitors to 93.0 cents for subassemblers. For learners the range was from 70.5 cents for balancers to 82.2 cents for milling-machine operators. Only 8 occupations had a sufficient number of female employees to make wage computations for the separate occupations feasible.

The remaining columns in table 4 contain individual plant averages in descending order of averages, and hence no one column represents the averages found in a single plant.<sup>3</sup> It should be emphasized that

<sup>3</sup> Certain plants specialize in the manufacture of blades or hubs and, therefore, many of the occupations in table 4 are not found in every plant. It should also be noted that two plants operated by one manufacturer maintain combined records.

occupational averages by plant are given, and that individual employees with earnings above and below the stated plant average generally will be found.

The highest individual plant average, \$1.642, was found for work-

TABLE 4.—Average Straight-Time Hourly Earnings of First-Shift

Occupation <sup>1</sup>	Per- cent of total em- ploy- ees stud- ied	Aver- age hourly earn- ings all plants	Individual plant averages in descending order				
<b>Male workers:</b>							
Assemblers, final.....	1.1	\$1.105	\$1.200	\$1.178	\$1.173	\$1.098	\$1.093
Assemblers, sub.....	2.5	1.177	1.309	1.250	1.183	1.157	1.119
Balancers.....	2.3	1.187	1.376	1.250	1.220	1.191	1.133
Boring-mill operators.....	.4	1.208	1.321	1.250	1.163	1.115	1.100
Burrers, filers.....	3.0	.995	1.054	1.037	1.030	1.024	1.010
Carpenters, maintenance.....	.6	1.098	1.380	1.153	1.125	1.112	1.095
Drill-press operators, multiple spindle.....	1.2	1.158	1.309	1.173	1.111	1.095	1.057
Drill-press operators, single spindle.....	1.0 <sup>1</sup>	1.141	1.309	1.257	1.089	1.029	1.012
Electricians, maintenance.....	.8	1.167	1.357	1.195	1.184	1.164	1.162
Filer fitters (finish).....	2.3	1.185	1.382	1.206	1.178	1.115	1.047
Gear hobbers and shapers.....	.5	1.121	1.440	1.160	1.140	1.119	1.090
Grinder operators, cylindrical (external and internal).....	5.4	1.227	1.383	1.323	1.250	1.240	1.196
Grinder operators, surface.....	1.0	1.196	1.380	1.214	1.192	1.092	.925
Grinders, portable and bench.....	5.2	1.208	1.511	1.309	1.309	1.191	1.154
Guards.....	2.1	.893	1.035	.973	.950	.904	.894
Heat treaters and brazers.....	.3	1.031	1.066	1.023	.988	-----	-----
Helpers, production.....	.6	1.004	1.178	1.131	.936	.907	.870
Helpers, trades.....	.9	.912	1.077	1.001	.948	.916	.890
Inspectors, assembly.....	.9	1.089	1.440	1.309	1.134	1.122	1.009
Inspectors, machined parts.....	3.8	1.105	1.380	1.285	1.088	1.068	1.062
Inspectors, process.....	2.3	1.047	1.309	1.214	1.178	1.086	1.066
Inspectors, receiving and magnaflux.....	.7	.982	1.250	1.120	1.040	1.020	.964
Inspectors, tools, dies and jigs.....	1.3	1.364	1.511	1.383	1.354	1.339	1.320
Janitors.....	3.0	.796	1.047	1.035	.893	.864	.806
Laborers, productive.....	.5	.772	.832	.764	.746	-----	-----
Lathe operators, engine.....	1.8	1.219	1.369	1.363	1.163	1.162	1.129
Lathe operators, turret, automatic and semi- automatic.....	1.8	1.230	1.489	1.380	1.339	1.309	1.265
Lathe operators, turret, hand.....	1.4	1.173	1.440	1.253	1.136	1.095	1.092
Learners.....	5.6	.760	.857	.850	.849	.811	.780
Milling-machine operators.....	4.5	1.169	1.380	1.309	1.273	1.226	1.188
Millwrights, machinists, maintenance.....	1.6	1.235	1.547	1.232	1.212	1.185	1.180
Miscellaneous, productive.....	.9	1.219	1.250	1.219	1.199	-----	-----
Oilers.....	.2	.872	.881	.862	.862	-----	-----
Packers (box makers).....	1.4	.980	1.119	1.119	1.044	.952	.952
Painters, maintenance.....	.3	1.078	1.120	1.088	1.073	.982	.979
Plumbers and pipefitters, maintenance.....	.4	1.115	1.160	1.120	1.120	1.093	1.058
Polishers and buffers.....	5.3	1.205	1.440	1.440	1.416	1.368	1.264
Profiling-machine operators.....	.3	1.280	1.380	1.336	1.250	-----	-----
Screw-machine operators, automatic and semi- automatic.....	.2	1.060	1.120	1.040	.850	-----	-----
Set-up men, cutting and forming tools.....	1.6	1.281	1.642	1.295	1.287	1.260	1.189
Shipping and receiving clerks.....	1.4	.950	1.178	1.053	.988	.916	.908
Stockkeepers and storekeepers.....	1.7	1.021	1.250	1.119	.972	.972	.931
Straightening-press operators.....	2.6	1.071	1.497	1.380	1.273	1.164	1.090
Supervisors, working.....	4.1	1.282	1.642	1.511	1.488	1.330	1.325
Template, tool and die makers.....	2.0	1.329	1.571	1.398	1.361	1.359	1.350
Testers.....	.6	1.141	1.285	1.270	1.245	1.068	1.022
Tool-crib attendants.....	.8	.937	1.119	.968	.935	.916	.900
Tool and cutter grinders.....	1.6	1.107	1.440	1.208	1.173	1.027	.961
Truckers, hand (dispatchers).....	4.0	.862	1.178	.919	.879	.863	.849
Welders.....	1.6	1.124	1.208	1.125	1.049	-----	-----
<b>Female workers:</b>							
Assemblers, sub.....	.8	.930	.969	.922	.840	.704	-----
Burrers, filers (rough).....	1.3	.865	.964	.865	.780	.703	-----
Inspectors, machined parts.....	1.7	.798	1.047	.869	.802	.790	.765
Janitors.....	.3	.711	.916	.660	.600	-----	-----
Learners.....	1.7	.744	.853	.700	.685	.606	-----
Packers (box makers).....	.4	.719	.728	.714	.711	-----	-----
Stockkeepers and storekeepers.....	.4	.893	.916	.916	.803	-----	-----
Tool-crib attendants.....	.3	.828	.848	.837	.740	-----	-----

<sup>1</sup> Occupations representing 98.1 percent of the total employees found in the sample are included in this table.

ing supervisors and set-up men, cutting and forming tools, and the lowest, 58.7 cents for male janitors. In the female and learner groups only one plant average, for female inspectors of machined parts, was above \$1.00.

*Workers in Aircraft-Propeller Industry, by Occupation, October 1942*

Individual plant averages in descending order— Continued							Occupation <sup>1</sup>
\$0.940							Male workers:
1.093	\$0.970						Assemblers, final.
1.112	.961	\$0.908					Assemblers, sub.
							Balancers.
1.004	.857	.817					Boring-mill operators.
1.056	.781						Burrers, flers.
1.023							Carpenters, maintenance.
.800	.792						Drill-press operators, multiple spindle.
1.124	1.123						Drill-press operators, single spindle.
1.037	1.030	1.011	\$0.977				Electricians, maintenance.
.930							Filer fitters (finish).
1.151	1.146	1.097	1.011	\$0.864			Gear hobbers and shapers.
							Grinder operators, cylindrical (external and internal).
1.116	1.111	1.030	1.005	1.004	\$1.000	\$0.974	Grinder operators, surface.
.892	.888	.821	.800	.790			Grinders, portable and bench.
							Guards.
							Heat treaters and brazers.
.866	.747						Helpers, production.
.952	.888						Helpers, trades.
1.002	1.000	.991	.971	.910	.675		Inspectors, assembly.
1.052	.994	.955	.938	.933	.900	.723	Inspectors, machined parts.
.944	.895						Inspectors, process.
1.240	1.133						Inspectors, receiving and magnaflux.
.786	.731	.723	.701	.684	.669	.587	Inspectors, tools, dies and jigs.
							Janitors.
1.092	1.058	1.021	.940	.680			Laborers, productive.
1.092	1.069						Lathe operators, engine.
							Lathe operators, turret, automatic and semi-automatic.
.986	.929						Lathe operators, turret, hand.
.762	.687	.640	.636	.621	.593		Learners.
1.128	1.108	1.093	1.007	.961	.811	.808	Milling-machine operators.
1.146	1.055						Milwrights, machinists, maintenance.
							Miscellaneous, productive.
.913	.898	.892	.867	.857	.685		Oilers.
							Packers (box makers).
1.177	1.100	1.086	1.071	.990	.874		Painters, maintenance.
							Plumbers and pipefitters, maintenance.
							Polishers and buffers.
							Profiling-machine operators.
.962							Screw-machine operators, automatic and semi-automatic.
.900	.883	.864					Set-up men, cutting and forming tools.
.916	.865	.850	.803				Shipping and receiving clerks.
1.078	1.012	1.004	.907				Stockkeepers and storekeepers.
1.280	1.273	1.245	1.192	1.171	1.109	.871	Straightening-press operators.
1.318	1.316	1.311	1.127	1.100			Supervisors, working.
.988	.906						Templates, tool and die makers.
.891							Testers.
.926	.914	.883					Tool-crib attendants.
.816	.810	.690					Tool and cutter grinders.
							Truckers, hand (dispatchers).
							Welders.
							Female workers:
.692							Assemblers, sub.
							Burrers, flers (rough).
							Inspectors, machined parts.
							Janitors.
							Learners.
							Packers (box makers).
							Stockkeepers and storekeepers.
							Tool-crib attendants.



## Regional Variations in Earnings

The 14 propeller-manufacturing plants represented in this report are in Connecticut, New Jersey, and Pennsylvania in the East, and Ohio, Indiana, and Michigan in the Midwest. General average hourly earnings by region were shown in table 3 for all of the occupations for which data were obtained. Some of the occupations upon which these averages are based were not found in both regions. Precise regional comparison is possible in 35 of the 50 occupations in which men are employed; these data are shown in table 5. The data do not warrant a similar occupational comparison by region for female employees and learners.<sup>4</sup>

TABLE 5.—Average Straight-Time Hourly Earnings of First-Shift Male Workers in Aircraft-Propeller Industry, by Occupation and Region, October 1942

Occupation	East		Midwest	
	Percent of first-shift employees	Average hourly earnings	Percent of first-shift employees	Average hourly earnings
Assemblers, final	0.8	\$1.085	1.4	\$1.118
Assemblers, sub	2.2	1.227	2.7	1.133
Balancers	2.3	1.228	2.4	1.146
Burrers, filers (rough)	3.7	.981	2.3	1.020
Carpenters, maintenance	.4	1.160	.8	1.067
Drill-press operators, multiple spindle	1.2	1.220	1.1	1.088
Drill-press operators, single spindle	1.2	1.266	.7	.928
Electricians, maintenance	.6	1.173	1.0	1.163
Filer fitters (finish)	2.9	1.256	1.6	1.051
Grinder operators, cylindrical (external and internal)	4.5	1.331	6.3	1.147
Grinders, portable and bench	5.0	1.311	5.3	1.102
Guards	1.7	.964	2.5	.840
Helpers, trades	1.0	.896	.8	.935
Inspectors, assembly	.9	1.097	.9	1.079
Inspectors, machined parts	3.3	1.169	4.4	1.053
Inspectors, process	2.0	1.092	2.7	1.013
Inspectors, receiving and magnaflux	.8	.987	.6	.975
Inspectors, tools, dies and jigs	1.1	1.439	1.6	1.310
Janitors	2.4	.827	3.6	.775
Lathe operators, engine	2.3	1.206	1.2	1.065
Lathe operators, turret, automatic and semiautomatic	1.3	1.343	2.3	1.160
Milling-machine operators	5.3	1.225	3.6	1.082
Millwrights, machinists, maintenance	1.4	1.200	1.9	1.186
Packers (box makers)	1.4	1.051	1.4	.904
Polishers and buffers	3.1	1.350	7.7	1.142
Set-up men, cutting and forming tools	1.4	1.298	1.8	1.268
Shipping and receiving clerks	1.4	.931	1.5	.969
Stockkeepers and storekeepers	2.0	1.075	1.4	.937
Straightening press operators	3.5	1.042	1.6	1.138
Supervisors, working	6.1	1.298	2.1	1.228
Template, tool and die makers	1.2	1.316	2.9	1.334
Testers	.7	.175	.5	1.092
Tool-crib attendants	.7	.959	1.0	.920
Tool and cutter grinders	.9	1.097	2.3	1.111
Truckers, hand (dispatchers)	3.9	.884	4.1	.839

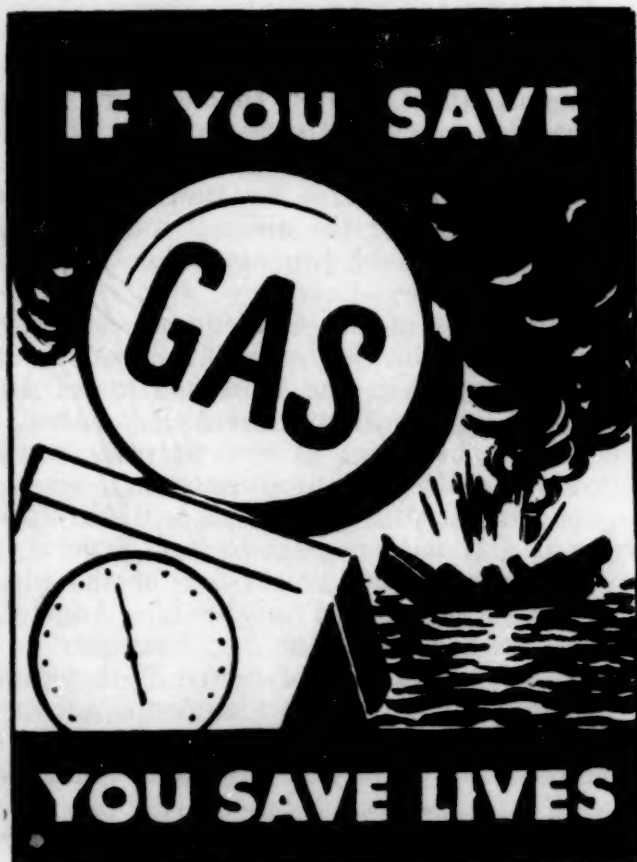
Average hourly earnings for all 35 male occupations shown in table 5 amounted to \$1.170 in the East and \$1.074 in the Midwest, an average difference of approximately 10 cents in favor of the East.<sup>5</sup> These figures may be compared with the averages shown in table 3 for all male experienced workers of \$1.169 in the East and \$1.073 in

<sup>4</sup> Comparison of wages for these groups of employees as a whole is found in table 3.

<sup>5</sup> In order to determine to what extent these averages might be the result of differences in occupational patterns between regions, occupational averages were cross-weighted by the number of employees found in each occupation in the two regions. The results of these computations indicate that the regional averages, as shown in table 5, are affected only to a negligible extent by differences in the occupational composition of the labor force in the two regions.

the Midwest. The greatest regional difference in average hourly earnings was found for single-spindle drill-press operators, with the eastern hourly rate 33.8 cents above that for the Midwest. Average hourly earnings in the East were above those for the Midwest in 28 of the 35 occupations for which comparisons are made.

It may be of interest to note that there was considerable variation in straight-time plant average hourly earnings within the two regions. The difference between the lowest and highest plant averages amounted to 35.6 cents in the East, as compared with a range of 22.2 cents in the Midwest. There was no consistent pattern of averages according to plant size; although the lowest averages were found in small plants, other small plants paid high average wage rates, while large plants were found with wage rates materially below the average in the industry.



## EARNINGS IN CALIFORNIA AIRCRAFT-PARTS PLANTS, NOVEMBER 1942<sup>1</sup>

### Summary

FIRST-SHIFT workers in a representative sample of California aircraft-parts plants received average hourly earnings, exclusive of premium overtime pay, amounting to 91.4 cents in November 1942. Male workers, who constituted 80.7 percent of the total first-shift employment, averaged 96.2 cents, as compared with 71.1 cents for female workers. Nearly one-third of all of the workers were employed in occupations in which earnings averaged \$1.00 or more per hour. First-shift workers in the 35 plants in the Los Angeles area, which employed 91.7 percent of the California workers for whom detailed occupational wage rates were compiled, had average hourly earnings of 91.7 cents; the average for the 6 plants outside the Los Angeles area amounted to 88 cents an hour. These findings were developed from a Nation-wide survey of wages in the aircraft-parts industry recently completed by the Bureau.<sup>2</sup>

### Nature of the Industry

The great expansion since 1939 in the demand for military aircraft has necessitated a very extensive program of subcontracting. Hundreds of relatively small establishments, normally engaged in many different types of manufacture, are now devoting all or part of their facilities to production for the aircraft industry. The aircraft parts produced by these establishments range from very minute fittings to major subassemblies.

One of the consequences of the tremendous development of the airframe-assembly industry in California has been the growth of a subsidiary industry engaged in the manufacture of aircraft parts. This industry is found largely in the Los Angeles area, and consists of plants converted to this form of war output, as well as plants designed initially for aircraft-parts production.

The aircraft-parts industry in California is made up of numerous plants which vary greatly with respect to size, type of product, and nature of productive processes. Thirty-five of the plants included in the present survey are situated in the Los Angeles area. The remaining six plants are located in the San Francisco and San Diego areas. Although the concentration of many of the large west-coast aircraft-manufacturing companies in California accounts, in part, for the importance of that State in the aircraft-parts industry, the work of these plants is by no means limited to contracts with local companies. The California establishments supply parts to major aircraft producers in many other sections of the United States.

Relatively few plants existed in 1939, even in California, for the production exclusively of aircraft parts. Thus, 29 of the 41 com-

<sup>1</sup> Prepared in the Bureau's Division of Wage Analysis by Edith M. Olsen, under the supervision of H. M. Douty.

<sup>2</sup> Other reports on various divisions of the aircraft industry now available are Bureau of Labor Statistics Bulletins No. 704 (Wage Rates in California Airframe Industry, 1941) and No. 728 (Wage Rates in the Eastern and Midwestern Airframe Industry, 1942). A third report, Earnings in Aircraft-Engine Plants, May 1942, appeared in the Monthly Labor Review for December 1942 and is available separately as Serial No. R. 1505. A report on wages in aircraft-propeller manufacturing appears elsewhere in this issue of the Monthly Labor Review. A report on wages in the aircraft-parts industry as a whole is now in preparation.



panies included in this study have either been established since that time for aircraft-parts production, or have converted their facilities from other industries since the beginning of the defense program in 1940. Some of the plants are still manufacturing other products, but 89.6 percent of all the workers employed in the 41 plants during the pay-roll periods scheduled were actually engaged in the production of aircraft parts.

### *Scope and Method of Survey*

The present analysis of the wage structure of California aircraft-parts plants is based on data collected in a Nation-wide survey of wages in the aircraft-parts industry. The 41 California plants covered in this analysis are believed to constitute a representative sample of the parts industry in the State. In the selection of the sample, the factors of location, size of plant, unionization, corporate affiliation, and type of product were taken into account. The data for the survey were collected by trained field representatives of the Bureau from pay-roll and other plant records. Most of the wage data relate to representative pay-roll periods in November 1942. In some plants, however, wage data were obtained for a representative week shortly before or shortly after November.

Detailed occupational data were obtained in the 41 California plants for all first-shift workers engaged in the production of aircraft parts at the time of the survey. These first-shift workers constituted 64.1 percent of the total number of aircraft employees in the plants studied. Separate occupational data were secured for male and female workers. Other types of information, designed to facilitate the analysis of the wage data, were obtained for each plant.

Typical of the products currently being manufactured in the plants included in the survey are landing-gear assemblies; wing, tail, and fuselage parts; hydraulic assemblies; cowlings; fuel tanks; and many other parts. Most of the plants manufacture more than one type of product. Therefore, in presenting the wage data, no classification of the plants according to type of product has been made. Despite the heterogeneous nature of the products, the plants studied were found to have similar occupational patterns. The use of standard job descriptions by field representatives of the Bureau was designed to secure the greatest possible uniformity in the classification of occupations in the plants covered by the study.

Because the aircraft-parts industry actually embraces branches of many other industries having widely different occupational patterns, it was obviously impracticable to cover all types of products in one wage study. Omitted from this survey, therefore, are plants primarily engaged in the manufacture of aircraft parts belonging in the following categories: Electrical equipment and accessories, aircraft armor plate, engine and flight instruments, and parts made exclusively of rubber, wood, or plastics.

### *The Labor Force*

Although all of the establishments included in this survey were engaged primarily in metalworking operations, there was great variation among plants in the percentage of skilled workers employed. The labor force in some of the smaller plants was made up almost

entirely of highly skilled workers. In other plants, where the operations had been divided into many relatively routine tasks, a large proportion of the labor force consisted of less-skilled employees.

Women were employed in 34 of the 41 plants studied, and constituted 21.6 percent of the total number of workers in all plants, and 19.3 percent of the first-shift workers for whom detailed occupational wage rates were obtained. The number of different occupations in which female workers were engaged at the time of the survey is impressive, as table 4 indicates. Relatively few women, however, were employed in highly skilled occupations.

Approximately 10 percent of all first-shift workers were classified as trainees, and slightly more than 50 percent of these trainees were women. More than half of all the trainees were learning to operate various types of machines, but a large proportion of the woman trainees were working at assembling operations.

Thirteen of the 41 plants employed some Negroes, but these workers accounted for only 0.7 percent of the total working force in all plants. Negroes were employed principally as janitors and plant laborers, with only a few working as machine operators.

Five of the 41 plants were operating under agreements with unions affiliated with the American Federation of Labor. In two other plants negotiations with nationally affiliated unions were in progress at the time of the survey. Four plants reported agreements with unaffiliated unions, and 30 plants reported no union agreements.

### *Wage-Payment Practices*

Incentive methods of wage payment were not employed to any appreciable extent by California aircraft-parts plants in November 1942. In fact, 40 of the 41 companies covered by the survey paid all of their workers on a time basis. The one remaining company reported a production-bonus system, which applied, however, only to a small proportion of the workers in the plant.

Employees in all of the plants studied were paid time and a half for all work above 40 hours a week; this overtime rate was also applied to hours worked in excess of 8 a day in 33 of the plants. For work on the seventh consecutive work day 27 plants paid double time and 9 paid time and a half. All holiday work was paid for in 23 plants at the rate of time and a half and in 2 plants at double time. Fourteen of the 41 plants were operating on a 3-shift basis, but only 7.9 percent of all aircraft-parts employees were working on the third shift. Twenty-one plants were operating two shifts; 28 percent of all workers were employed on the second shift. The remaining 6 plants had only one shift. As noted earlier, 64.1 percent of the total working force was employed on the first shift.

Usable data on the payment of premiums for work on second and third shifts were reported for 34 of the 35 plants operating more than one shift. Five of these plants paid no differentials. Although there was actually little uniformity among the plants in the amount of the differential paid to employees for evening or night work, the most common rate was an additional 5 cents an hour above the base rate (table 1). Several of the plants operating three shifts paid a greater differential to workers on the third (or night) shift than to those on the second (or evening) shift.

TABLE 1.—*Wage Differentials for Second- and Third-Shift Workers in California Aircraft-Parts Plants, November 1942*

Number of shifts worked	Number of plants	Differential paid for—	
		Second shift	Third shift
Plants with 1 shift only.....	6	No differential.....	
Plants with 2 shifts.....	4	5 cents per hour.....	
	8	6 cents per hour.....	
	4	8 cents per hour.....	
	1	10 cents per hour.....	
	1	10 cents per hour, plus pay for 20-minute lunch period.....	
	1	10 hours' pay for 9.5 hours' work.....	
Plants with 3 shifts.....	2	No differential.....	No differential.....
	1	do.....	8 hours' pay for 7 hours' work.....
	1	2.5 cents per hour.....	5 cents per hour.....
	1	4 cents per hour.....	4 cents per hour.....
	2	5 cents per hour.....	5 cents per hour.....
	2	do.....	8 hours' pay for 6 hours' work.....
	1	5.5 cents per hour, plus 8 hours' pay for 7.5 hours' work.....	11 cents per hour, plus 8 hours' pay for 7 hours' work.....
	2	6 cents per hour.....	6 cents per hour, plus 8 hours' pay for 6.5 hours' work.....
	1	8 cents per hour.....	8 cents per hour.....
	1	10-percent bonus.....	10-percent bonus.....

Among the companies with established entrance-rate policies, new workers were paid starting rates ranging from 50 cents to 70 cents an hour, with a 60-cent rate being found most frequently. Fifteen of the companies reported no set hiring rates. There was no uniformity in the provisions made by the various companies for the automatic adjustment of wages after specified periods of service. Some of the plants advanced wages only on an individual merit basis. In those plants where automatic raises based on length of service were reported, the usual amount of the increase was 5 cents an hour at intervals usually of 4 weeks or 1 month, until the basic job rates were attained.

### *Hours and Earnings, 1941 and 1942*

Average hours and earnings, including premium pay for overtime and shift-differential payments, were obtained for all wage earners for pay-roll periods in January 1941, May 1942, and for the November 1942 pay-roll period for which detailed occupational wage data were secured (table 2). Comparable data were reported, however, for only 23 plants during the January 1941 pay-roll period and for 35 plants during the May 1942 period. Only the hours and earnings shown in table 2 for November 1942 are fully representative of all of the 41 plants included in the survey. At that time, employees in these 41 plants averaged 48.1 hours per week and had gross average hourly earnings of \$1.059; gross average weekly earnings amounted to \$50.92.

Since employment and earnings data for the earlier periods were not available in some of the plants, information for a group of 23 identical plants is also shown in table 2. Gross average hourly earnings in these 23 plants increased from 83.2 cents in January 1941 to \$1.075 in November 1942; gross average weekly earnings increased from \$37.69 to \$50.93 during the same period. An indication of the magnitude of the employment change in the California division of the aircraft-parts industry can perhaps be obtained from the fact that the



number of workers in these 23 plants increased by 169 percent between January 1941 and November 1942.

Although most of the 41 plants studied reported increases in hourly rates to individual employees, general wage increases since January 1941 were reported by only 7 of the plants. Some of the establishments did not start production until after January 1941, and many of the plants which have converted from other types of manufacture have undoubtedly made many changes in the composition of their labor forces.

TABLE 2.—Average Hours and Earnings of Workers in California Aircraft-Parts Plants, 1941 and 1942

Year and month	Number of plants	Average weekly earnings <sup>1</sup>	Average weekly hours	Gross average hourly earnings <sup>1</sup>	Estimated average hourly earnings excluding overtime <sup>2</sup>
January 1941.....	23	\$37.69	45.3	\$0.832	\$0.774
May 1942.....	35	49.44	49.4	1.001	.905
November 1942.....	41	50.92	48.1	1.059	.967
Identical plants:					
January 1941.....	23	37.69	45.3	.832	.774
November 1942.....	23	50.93	47.4	1.075	.986

<sup>1</sup> Including overtime-premium and shift-differential payments.

<sup>2</sup> Includes shift-differential payments.

### Variations in Plant Wage Levels

A distribution of the wage earners by plant average hourly earnings, including overtime-premium pay and shift differentials, shows that the 24 plants having averages between 95 cents and \$1.20 an hour employed 82.3 percent of all the wage earners in the 41 plants during the November 1942 period (table 3). Perhaps more significant is the concentration of 49.4 percent of the workers in the 14 plants having averages within the narrow range of \$1.00 to \$1.09 an hour. As shown in table 2, general plant average hourly earnings for the November pay-roll period were \$1.059.

While all plants with wage levels below 90 cents an hour employed 100 workers or less, there is no striking difference in average hourly earnings among plants of various sizes. Plants with 100 workers, or less, were found in all but one of the intervals shown in table 3, and average earnings in these small plants as a group were \$1.016, as compared with an average of \$1.069 for all plants employing 500 or more workers.

It should be recognized, of course, that differences in plant wage levels do not necessarily reflect corresponding differences in basic wage rates. Plant wage levels are affected by many factors other than the wages paid for specific types of labor. Differences in occupational patterns among plants, variations in the length of the average work-week and, hence, in the relative magnitude of premium pay for overtime, and differences in policy regarding the payment of shift premiums are among the factors, aside from wage-rate differences, that help to explain variations in plant average hourly earnings.

TABLE 3.—Distribution of California Aircraft-Parts Plants and Workers, by Plant Average Hourly Earnings,<sup>1</sup> November 1942

Plant average hourly earnings	Number of plants	Percent of workers
Under 80 cents.....	3	0.7
80 and under 85 cents.....	2	1.0
85 and under 90 cents.....	3	1.0
90 and under 95 cents.....	4	4.0
95 and under \$1.00.....	5	18.1
\$1.00 and under \$1.05.....	9	27.9
\$1.05 and under \$1.10.....	5	21.5
\$1.10 and under \$1.20.....	5	14.8
\$1.20 and under \$1.30.....	3	9.9
\$1.30 and over.....	2	1.1
Total.....	41	100.0
Average hourly earnings, all plants.....	<sup>1</sup> \$1.059	-----

<sup>1</sup> Includes overtime-premium and shift-differential payments.

### Earnings by Occupation, November 1942

The basic wage data obtained in the survey are set forth in table 4. This table shows average hourly earnings, exclusive of overtime premium pay, separately for first-shift male and female workers classified by occupation. The crucial importance of the aircraft industry in the war precludes the publication of employment figures. In table 4, however, the number of workers in each occupation has been expressed as a percentage of the total number of first-shift aircraft-parts workers employed in the plants covered by the survey. The use of this procedure provides a measure of the relative importance of various types of workers in the California division of the industry.

As table 4 indicates, all first-shift wage earners in the 41 California aircraft-parts plants covered by the survey received average straight-time wages of 91.4 cents an hour in November 1942. It will be recalled that the gross average hourly rate for all workers, including premium overtime and shift-differential payments, was \$1.059. The difference between these two figures reflects the effect upon earnings of punitive overtime rates and shift-differential payments. It is estimated that elimination of overtime premium payments alone would reduce gross average hourly earnings in November by slightly more than 9 cents per hour.

Straight-time average earnings, by occupation, in all California plants ranged from 60.6 cents an hour for female buffers to \$1.431 an hour for male patternmakers. Nearly one-third of the workers were in the 43 occupational groups with average earnings of \$1.00 an hour or more, and 8.5 percent of the workers were classified in the 6 occupational groups in which earnings averaged \$1.25 an hour or more. Workers in 17 of the occupations, excluding trainees and apprentices, had average earnings of less than 70 cents, but only 7.8 percent of the workers were employed in these occupational groups.

TABLE 4.—Average Straight-Time Hourly Earnings<sup>1</sup> of First-Shift Workers in California Aircraft-Parts Plants, by Occupation and Sex, November 1942

Occupation and class	Percent of workers	Average hourly earnings	Occupation and class	Percent of workers	Average hourly earnings
All workers.....	100.0	\$0.914	<b>Males—Continued</b>		
Males.....	80.7	.962	Lathe operators—Continued.		
Females.....	19.3	.711	Turret:		
<b>Males</b>			Class A.....	2.0	\$1.231
Acid dippers.....	.4	.729	Class B.....	1.3	.976
Anodizers, class A.....	.1	1.082	Class C.....	.4	.788
Apprentices.....	.4	.750	Lay-out men, class A.....	.1	1.143
Assemblers:			Loaders and unloaders, racks and conveyors.....	.1	.763
Bench:			Machine operators, all-round:		
Class A.....	2.4	1.077	Class A.....	.2	.993
Class B.....	3.5	.879	Class B.....	.3	.866
Class C.....	1.0	.755	Machinists, general.....	.8	1.178
Floor:			Metal-saw operators.....	.2	.824
Class A.....	.5	.973	Milling-machine operators:		
Class B.....	1.5	.803	Class A.....	1.7	1.147
Class C.....	.3	.678	Class B.....	1.0	.960
Balancing-machine operators.....	(2)	(3)	Class C.....	.4	.802
Boring-mill operators:			Millwrights:		
Class A.....	.2	1.086	Class A.....	.1	1.191
Class B.....	.1	.963	Class B.....	(2)	(3)
Broaching-machine operators.....	(2)	(2)	Oilers, maintenance.....	.1	.817
Buffers.....	.6	.800	Packers.....	(2)	(3)
Burrers:			Painters.....	.6	.893
Class B.....	1.3	.797	Painters, maintenance.....	(2)	(3)
Class C.....	1.3	.732	Patternmakers, wood.....	.1	1.431
Carpenters, maintenance:			Pipefitters, maintenance.....	(2)	(3)
Class A.....	.5	1.123	Planer operators.....	(2)	(3)
Class B.....	.3	.871	Platers.....	.1	1.030
Clerks, factory.....	5.5	.821	Power-shear operators.....	.2	.829
Craters.....	.1	.925	Power-brake operators, class A.....	.1	1.000
Die setters.....	.1	.906	Punch-press operators:		
Drill-press operators:			Class A.....	.3	1.020
Class A.....	1.2	.962	Class B.....	.6	.825
Class B.....	1.8	.858	Class C.....	(2)	(3)
Class C.....	1.5	.758	Repairmen, machine.....	.9	1.072
Drop-hammer operators:			Riveters, pneumatic.....	(2)	(3)
Class A.....	.2	1.110	Riveting-machine operators.....	(2)	(3)
Class B.....	.3	.885	Router operators.....	.1	.813
Electricians:			Salvagers.....	.2	.995
Class A.....	.4	1.151	Sandblast operators.....	.2	.873
Class B.....	.1	.986	Screw-machine operators:		
Class C.....	(2)	(2)	Class A.....	.5	1.192
Expeditors.....	.2	.881	Class B.....	.3	.956
Extrusion-press operators.....	(2)	(2)	Class C.....	.1	.831
Firemen, stationary boiler.....	(2)	(2)	Shaper operators.....	(2)	(2)
Foremen, working:			Sheet-metal workers:		
Class A.....	3.5	1.318	Class A.....	.6	1.117
Class B.....	1.6	1.042	Class B.....	.6	.823
Class C.....	.4	.918	Solderers, class B.....	.5	(2)
Gear cutters, class A.....	(2)	(2)	Speed-lathe operators, class B.....	(2)	(2)
Grinding-machine operators:			Spinners.....	.1	1.338
Class A.....	.9	1.113	Straighteners.....	.1	.880
Class B.....	.5	.909	Template makers, class A.....	(2)	(3)
Class C.....	.1	.840	Testers:		
Heat treaters:			Class A.....	.1	1.106
Class A.....	.2	1.078	Class B.....	.2	.912
Class B.....	.1	.802	Class C.....	.4	.715
Helpers:			Thread-milling-machine operators.....	.2	.950
Journeymen's.....	.8	.830	Toggle-press operators.....	.1	1.042
Machine operators.....	.7	.747	Tool and die makers:		
Other.....	.8	.716	Class A.....	3.2	1.330
Hydro-press operators, class A.....	(2)	(2)	Class B.....	1.0	1.050
Inspectors:			Class C.....	.3	.960
Class A.....	3.0	1.160	Tool-crib attendants:		
Class B.....	1.8	.959	Class A.....	.4	.955
Class C.....	1.1	.858	Class B.....	.5	.731
Inspectors, receiving.....	.3	.854	Class C.....	.7	1.135
Janitors.....	1.5	.730	Trainees, journeymen.....	.3	.835
Job setters.....	.5	1.126	Trainees, machine operators.....	3.0	.706
Laborers.....	1.2	.638	Trainees, other.....	2.0	.703
Lathe operators:			Truck drivers.....	.6	.787
Engine:			Truckers, hand.....	.4	.755
Class A.....	2.0	1.197	Tube benders.....	(2)	(3)
Class B.....	1.0	1.017	Watchmen.....	1.2	.797
Class C.....	.4	.848	Welders, hand, class A.....	1.8	1.407

See footnotes at end of table.



TABLE 4.—Average Straight-Time Hourly Earnings of First-Shift Workers in California Aircraft-Parts Plants, by Occupation and Sex, November 1942—Continued

Occupation and class	Percent of workers	Average hourly earnings	Occupation and class	Percent of workers	Average hourly earnings
<i>Males—Continued</i>			<i>Females—Continued</i>		
Welders, hand, class B.....	0.4	\$1.013	Inspectors:		
Welders, hand, class C.....	.4	.815	Class A.....	(2)	(2)
Welders, machine.....	.4	.988	Class B.....	0.3	\$0.843
			Class C.....	1.5	.773
<i>Females</i>			Janitors.....	.1	.752
Acid dippers.....	(2)	(2)	Laborers.....	.1	.683
Anodizers, class B.....	(2)	(2)	Lathe operators, turret, class C.....	.1	.761
Assemblers:			Loaders and unloaders, racks and conveyors.....	.1	(2)
Bench:			Metal-saw operators.....	(2)	(2)
Class A.....	.2	.919	Milling-machine operators:		
Class B.....	1.1	.838	Class B.....	(2)	(2)
Class C.....	1.3	.712	Class C.....	(2)	(2)
Floor:			Packers.....	.1	.740
Class B.....	.2	.785	Power-brake operators, class B.....	(2)	(2)
Class C.....	1.0	.647	Power-shear operators.....	.1	(2)
Buffers.....	.1	.606	Punch-press operators:		
Burrers, class B.....	.4	.693	Class B.....	.1	.781
Burrers, class C.....	2.9	.662	Class C.....	.2	.763
Clerks, factory.....	1.3	.721	Riveting-machine operators.....	(2)	(2)
Drill-press operators:			Router operators.....	(2)	(2)
Class B.....	.3	.871	Screw-machine operators, class C.....	(2)	(2)
Class C.....	1.0	.660	Sheet-metal workers, class B.....	(2)	(2)
Foremen, working:			Solderers, class B.....	(2)	(2)
Class B.....	(2)	(2)	Testers, class C.....	(2)	(2)
Class C.....	.1	.811	Tool-crib attendants, class B.....	.2	.697
Grinding-machine operators, class C.....	(2)	(2)	Trainees, journeymen.....	(2)	(2)
Helpers:			Trainees, machine operators.....	2.5	.641
Journeyman's.....	(2)	(2)	Trainees, other.....	2.9	.697
Machine operators.....	.1	.675	Welders, hand, class A.....	.1	1.180
Other.....	.4	.696	Welders, hand, class C.....	.1	.741
			Welders, machine.....	.4	.753

<sup>1</sup> The average hourly earnings shown in this table are exclusive of overtime-premium and shift-differential payments.

<sup>2</sup> Less than a tenth of 1 percent. These occupations are included in the table to indicate fully the nature of the occupational pattern in the industry. Although average earnings by occupation are not shown for these workers, their earnings have been included in the average earnings for all workers and for male and female workers separately.

<sup>3</sup> Too few workers and/or plants to warrant the showing of an average.

Among male workers, factory clerks, who averaged 82.1 cents per hour and represented 5.5 percent of the workers, constituted the largest occupational group. Bench assemblers, class B, and working foremen, class A, each with 3.5 percent of the total workers, had averages of 87.9 cents and \$1.318 per hour, respectively. Approximately 40 percent of all the male workers on the first shift averaged \$1.00 or more per hour, excluding overtime and extra-shift payments. The average straight-time hourly rate for all first-shift male workers, who comprised 80.7 percent of the total wage earners on the first shift, was 96.2 cents.

Female workers, who constituted only 19.3 percent of all first-shift workers in the 41 plants studied, had an average straight-time hourly rate of 71.1 cents. Although a large proportion of the female occupations contained too few workers to justify computation of average earnings, the occupations were included in the table to give a complete picture of the range of occupations in which women were employed at the time of the wage study. It is anticipated that many additional women will be drawn into these and other occupations as the present labor shortage becomes more acute.

The largest single occupational group for female workers was that of burrers, class C, with an average hourly rate of 66.2 cents. The highest hourly rate paid to female workers was \$1.18 for class A hand welders. Approximately one-third of all the female workers, excluding the trainees and apprentices, were found in the occupational groups with average earnings of 70 cents an hour or less.

### *Area Differences in Wages*

The 35 plants included in the survey from the Los Angeles area employed 91.7 percent of all the workers for whom occupational wage rates were compiled. No separate occupational wage data are shown for the 6 plants outside of the Los Angeles area. These plants employed only 8.3 percent of the total first-shift workers. The straight-time average earnings for all first-shift workers in these 6 plants were 88.0 cents per hour, as compared with an average of 91.7 cents for the 35 Los Angeles plants. It will be recalled that the average for all 41 California plants combined was 91.4 cents.

### *Plant Ranges in Occupational Earnings*

The occupations for which individual plant ranges are shown in table 5 were selected for their importance in terms of numbers of workers employed. These occupations represented over 75 percent of all first-shift workers. There was a wide range between the highest and lowest average for individual plants in most of the occupational groups. Class A tool and die makers averaged only \$1.086 in the plant with the lowest average earnings in this occupation and \$1.74 in the plant with the highest earnings. The range for class A turret-lathe operators was from 85.0 cents to \$1.496 per hour. It should be emphasized that these ranges show the extremes in plant earnings by occupation, and as such have limited significance. They are interesting, however, as revealing the extent of variation from the average for all plants combined for each occupation.

TAB  
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Clerk  
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Train

TABLE 5.—Average Straight-Time Hourly Earnings and Plant Ranges of First-Shift Workers in Selected Occupations in California Aircraft-Parts Plants, November 1942

Occupation and class	Number of plants	Average hourly earnings	Individual plant averages	
			High	Low
<i>Males</i>				
Assemblers, bench, class A.....	19	\$1.077	\$1.350	\$0.850
Assemblers, bench, class B.....	21	.879	.970	.750
Assemblers, bench, class C.....	17	.755	.847	.600
Assemblers, floor, class B.....	4	.803	.950	.762
Burrers, class B.....	16	.797	.951	.708
Burrers, class C.....	18	.732	.880	.600
Clerks, factory.....	32	.821	1.008	.500
Drill-press operators, class A.....	17	.962	1.240	.800
Drill-press operators, class B.....	24	.858	.975	.700
Drill-press operators, class C.....	20	.758	.878	.629
Foremen, working, class A.....	30	1.318	1.500	.950
Foremen, working, class B.....	19	1.042	1.150	.846
Grinding-machine operators, class A.....	13	1.113	1.450	.850
Helpers, journeymen's.....	16	.830	.950	.650
Helpers, other.....	11	.716	.920	.550
Inspectors, class A.....	26	1.160	1.350	.750
Inspectors, class B.....	24	.959	1.160	.750
Inspectors, class C.....	13	.858	1.025	.700
Janitors.....	30	.730	.968	.500
Laborers.....	19	.638	.935	.550
Lathe operators, engine, class A.....	22	1.197	1.317	.900
Lathe operators, engine, class B.....	19	1.017	1.115	.900
Lathe operators, turret, class A.....	21	1.231	1.496	.850
Lathe operators, turret, class B.....	17	.976	1.175	.750
Machinists, general.....	13	1.178	1.329	.800
Milling-machine operators, class A.....	18	1.147	1.327	.850
Milling-machine operators, class B.....	21	.960	1.090	.650
Repairmen, machine.....	21	1.072	1.400	.750
Tool and die makers, class A.....	27	1.330	1.740	1.086
Tool and die makers, class B.....	16	1.050	1.350	.916
Trainees, machine operators.....	24	.706	.850	.575
Trainees, other.....	12	.703	.950	.550
Watchmen.....	17	.797	.935	.683
Welders, hand, class A.....	14	1.407	1.600	1.150
<i>Females</i>				
Assemblers, bench, class B.....	7	.838	.935	.700
Assemblers, bench, class C.....	12	.712	.800	.590
Assemblers, floor, class C.....	4	.647	.750	.622
Burrers, class B.....	6	.693	.935	.653
Burrers, class C.....	20	.662	.853	.500
Clerks, factory.....	17	.721	.935	.500
Drill-press operators, class C.....	12	.660	.812	.600
Inspectors, class C.....	15	.773	.935	.600
Trainees, machine operators.....	15	.641	.789	.500
Trainees, other.....	13	.697	.803	.500



## EARNINGS IN MANUFACTURE OF REFRIGERATING EQUIPMENT, 1942<sup>1</sup>

### Summary

THIS report on earnings in plants manufacturing refrigerating equipment is the fifteenth in a series undertaken by the Bureau of Labor Statistics for the purpose of providing information on the effects of the war on the several branches of the machinery industries.<sup>2</sup>

By the summer of 1942, the production of domestic refrigerators had practically ceased, and the eight plants included in this survey were either producing refrigerating equipment on Government order, or were engaged in manufacturing direct war materials. Considerable technological conversion was necessary. The greatest concentration of the industry is in the East North Central States.

The shift to war production caused employment to decrease in 1942 to about the figure for April 1940. Average earnings increased 23.5 cents—from 78.2 cents to \$1.017 per hour—from April 1940 to the summer of 1942. The lengthening of the average workweek by about 5 hours, however, resulted in some inflation of average hourly earnings, owing to extra payments for overtime; the actual increase in hourly rates is estimated at about 18 cents—from 75.1 cents to 93.5 cents.

Nearly a third of the male workers for whom detailed earnings data were compiled were in occupations with hourly earnings averaging in excess of \$1.00 per hour in the summer of 1942; approximately a sixth were in groups which averaged less than 75 cents an hour.

### Scope and Method of Survey

In order to provide basic information on the effects of the transition to a war economy on technological processes, occupational patterns, and wage structures, the Bureau of Labor Statistics has undertaken a series of studies in establishments manufacturing various types of machinery and similar products. Each of the industrial branches covered in this series is defined in terms of the principal products of the various plants during the year 1939 as reported by the Census of Manufactures. Important changes in type of product are to be expected, especially because the war emergency has accentuated the shifts in production that would ordinarily occur over a 3-year period. The data on these changes are in themselves significant, however, and it is thus useful to begin with the 1939 classification as a starting point in order to determine their nature.

Reports on the latest Census of Manufactures (1939) show that there were in the United States 309 establishments "whose principal products are mechanical refrigerators (both the motor-driven or compression type and the absorption or heat-actuated type) and refrigerating systems (both domestic and commercial), cabinets for sale as such (whether for use with mechanical refrigerating systems or for use with ice), and industrial ice-making and refrigerating machines."<sup>3</sup>

<sup>1</sup> Prepared in the Bureau's Division of Wage Analysis by Oscar F. Brown. The study was directed and the preparation of the report supervised by Harold R. Hosea.

<sup>2</sup> Previous articles in this series have appeared in each issue of the *Monthly Labor Review*, May 1942–March 1943; individual reports are available on request.

<sup>3</sup> This definition corresponds to that of Census industry No. 1784. The branches of the industry studied in this survey are, as a group, more limited than the Census definition. That part of the industry to which the data collected are especially applicable will be referred to hereafter as the "refrigerating equipment" industry.

This Census classification does not include the construction of built-in cooling rooms, cabinets, and similar equipment. Of the 309 establishments, 112 reported an average of fewer than 6 wage earners, and were excluded from the scope of this study. The remaining 197 plants, as a group, employed an average of 34,829 workers during 1939, and over a third were working at that time in the 8 establishments included in this survey.

The manufacture of refrigerating equipment is characterized by a high degree of concentration: about 85 percent of its wage earners and three-fifths of the plants are found in two areas—the East North Central States (Ohio, Michigan, Indiana, Illinois, and Wisconsin) and the Middle Atlantic States (New York, Pennsylvania, and New Jersey). The former group of States had somewhat over a fourth (28.8 percent) of the industry's plants and over two-thirds (68.2 percent) of the wage earners; the Middle Atlantic region reported less than a fifth (18.1 percent) of the wage earners, but nearly a third (30.7 percent) of the industry's plants.

In these two regions the industry is largely concentrated in four adjoining States—Pennsylvania, Ohio, Michigan, and Indiana. While these four States have a fourth (25.6 percent) of the plants in the refrigerating-equipment industry, over three-fourths (76.0 percent) of the workers are within their borders. Outside of these two regions, for the most part only smaller plants are found. Although other sections reported two-fifths of the plants in the industry, they included only 14 percent of the total number of wage earners.

Establishments selected for study were, for the most part, engaged in the production of commercial refrigerating equipment and systems, air-conditioning equipment, and industrial ice-making and refrigerating machines. These plants have a fairly wide geographical distribution and, in addition, were selected as representative with respect to size, unionization, and certain other factors. The data in this report, therefore, are most applicable to the branches of the industry just enumerated. Domestic refrigerator plants are not represented in proportion to their numerical importance at the time the manufacture of such equipment for the general market was discontinued. The data for two of the companies studied are used with reduced weight in order to avoid overrepresentation of large plants.

The data for the present survey were collected by trained field representatives of the Bureau who visited the plants and analyzed pay rolls and other pertinent records. The detailed wage data on individual employees are limited to day-shift workers in certain occupational groups selected for their numerical importance or because they are key jobs. In general, however, earnings by occupation were compiled for 80 to 90 percent of the wage earners on day shifts. The current earnings data shown in this report are based, in most instances, on a representative pay-roll period during March, April, or May 1942. The current earnings data shown in this report are based on a representative pay-roll period during July and August 1942.

### *Characteristics of the Industry*

The branches of the industry which are studied in this report accounted for nearly half of the value of the total 1939 output of the industry as defined by the Census of Manufactures. The broader

scope of the Census definition includes domestic electric refrigerators, a product which, as noted above, this survey was not designed to include. The most important peacetime groups of products of the branches of the industry studied consisted of commercial-type refrigerators, which accounted for over a third of all production. Separately made cabinets, display cases, etc., for mechanical refrigerators amounted to about a fifth of output, while the manufacture of air-conditioning equipment and commercial refrigerating and ice-making machines were smaller branches of the industry.

#### PRODUCTION OF WAR MATERIALS

The impact of the war was felt relatively late by this industry; until 1942 the plants studied were engaged for the most part in manufacturing their usual products at a moderately increasing rate. Of the eight plants covered in the survey, the one establishment which produced war material in 1941 reported only 10 percent of its total output in that category; however, in the same year three plants were receiving high priority ratings on 40 to 70 percent of their production.

By August 1942, with the exception of one small establishment, all the plants included in the survey had been given priority ratings on 90 percent or more of all production. Two establishments were using 60 to 70 percent of their facilities in the production of direct war materials; in two other plants, including one of the largest in the industry, direct war production accounted for practically the entire output. It is worthy of note that a substantial proportion of this industry, including some of the largest establishments, apparently had difficulty in shifting to production of war materials. At the time of the present survey, total employment in the plants studied was still more than a sixth below the figure for the previous year, when the output of the usual products of the industry was near its all-time peak.

To some extent, the plants in this industry were using their regular facilities in 1942 to produce refrigerating equipment on Government order. To the extent that they produced direct war materials, however, technological conversion was necessary. The amount of such conversion in some of the plants studied may be judged by the fact that one of the large establishments in the industry discontinued its usual production entirely, and was compelled to undertake a program of extensive retooling when it shifted to the exclusive production of machine guns, aircraft propellers, and aircraft parts. Another plant reported that a completely different occupational pattern resulted after initiation of war production. Among the war materials being produced, in addition to those already mentioned, were electric communication products, naval gun parts, ordnance, and ordnance supplies.

#### THE LABOR FORCE

Detailed earnings data were compiled for nearly four-fifths of all the workers employed in the plants surveyed; this group included practically all of those on day shifts. Thirty percent of the males whose wage and occupational data were studied in detail were working at skilled jobs; 46.2 percent were doing semiskilled work; and the remaining 23.4 percent were classified as unskilled.



At the time the present study was made, women constituted slightly over 5 percent of all employees in the plant studied. Over 95 percent of all the women found were working in two plants; in one of these establishments they amounted to nearly 30 percent of the total working force. The most common occupations for women in the industry were class C bench assemblers, class C drill-press operators, and class C burrers. One large plant had a considerable number working as class B milling-machine operators. For the most part, however, woman workers were working at unskilled jobs.

Approximately 85 percent of all the Negroes reported in the establishments surveyed were working in one large midwestern plant where they constituted 3 percent of all the employees. Negroes, in this as in other branches of the machinery industries studied by the Bureau, were employed mostly as janitors and laborers; some, however, were reported as hand truckers, chippers, and machine molders.

Five of the eight plants studied had agreements with nationally affiliated unions. One of these agreements, which covered a very large plant, was with the United Electrical, Radio and Machine Workers of America, a union affiliated with the Congress of Industrial Organizations. The other four plants had contracts with the International Association of Machinists, the Sheet Metal Workers International Association, the United Brotherhood of Carpenters and Joiners of America, and the Stove Mounters International Union—all American Federation of Labor groups. The organized plants included all of those in the small-size group. In three other plants, including two of the three largest establishments surveyed, independent unions were recognized.

#### METHOD OF WAGE PAYMENT

Of the five establishments with fewer than 300 employees, all but one paid on a straight hourly basis, presumably because of the inability of plants in that size group to use mass-production techniques in the wide variety of processes involved in manufacturing most of the products of this industry. Of the four plants which used some form of incentive system, one had fewer than 1,000 employees; each of the other three establishments had over 1,000. In the eight plants as a group, over two-fifths (42.3 percent) of the employees were paid under some plan of varying rates according to output. In the four plants which made use of such methods, somewhat less than half of all the employees (46.8 percent) were paid on the basis of incentive rates.

Provisions for the payment of overtime in the group of plants surveyed are more liberal than in other branches of the machinery industry studied in one respect: none of the plants reported extra overtime as low as minimum statutory requirements, i. e., time and a half only for work above 40 hours a week; all of the plants reported payment of this rate for work in excess of 8 hours in one day. Two establishments paid on this same basis for Sunday work, and, of these, one also paid time and a half for Saturday operation. Double-time rates were effective on Sundays in two plants, and on holidays in three plants.

Of the eight plants studied, the three smallest operated on a single-shift basis, one operated two shifts, and the remaining four plants

reported three shifts (table 1). Aside from one of the plants which reported three shifts, and which allowed no premium to second-shift workers, all five plants operating more than one shift were paying shift differentials at the time the survey was made. The one plant which reported two shifts paid the second shift a differential of 10 percent over base rate. Four establishments worked both a second and a third shift; three of these paid the same bonus to both shifts—5 percent over base rate in the case of two plants—while the other establishment paid a differential of 3 cents per hour. The other plant which reported three shifts gave no differential to the second shift, but paid the third shift a bonus of 2 cents per hour.

TABLE 1.—*Wage Differentials for Second and Third Shifts in 8 Plants Manufacturing Refrigerating Equipment, July–August 1942*

Number of shifts worked	Number of plants	Differential paid for—	
		Second shift	Third shift
Plants with 1 shift only.....	3		
Plants with 2 shifts.....	1	10 percent over base rate.....	
Plants with 3 shifts.....	1	No differential.....	2 cents per hour.
	2	5 percent over base rate.....	5 percent over base rate.
	1	3 cents per hour.....	3 cents per hour.

### Employment, Hours, and Earnings

#### TREND FROM 1940 TO 1942

It is not possible to present data on the trend of earnings beginning with August 1939, as in previous reports in this series, since data on hours and earnings are not available for 1939. Complete information was, however, supplied by all the plants studied for April 1940 and subsequent specified periods. The total number employed in the establishments studied was about the same at the beginning and at the end of the 29-month period for which comparable data are available; the exact figures were 5,216 in April 1940 and 5,199 in the summer of 1942 (table 2). From the beginning of the period for which complete reports are available to August 1941, however, employment rose nearly a fourth, owing to an expansion in the output of the industry's usual products. The transition to war production brought problems of readjustment that resulted in a reduction of total employment to a figure approximately that reported at the beginning of the period.

TABLE 2.—*Employment, Average Hourly Earnings, and Average Weekly Hours of Workers in 8 Refrigerating-Equipment Plants, for Specified Periods, 1940–42*

Year and month	Total wage earners <sup>1</sup>	Average hourly earnings	Estimated average hourly earnings, exclusive of extra overtime payments	Average weekly hours
April 1940.....	5,216	\$0.782	\$0.751	41.9
August 1940.....	4,777	.800	.784	38.5
January 1941.....	5,450	.824	.791	41.9
August 1941.....	6,344	.898	.867	41.2
July–August 1942.....	5,199	1.017	.935	40.8

<sup>1</sup> Data for 2 companies used with reduced weight to avoid overrepresentation of large plants.

Average hourly earnings (including extra payments for overtime and night work), which amounted to 78.2 cents at the beginning of the 29-month period, had increased to \$1.017 by the time the survey was made; this rise of 23.5 cents represents a gain of 30.1 percent. During the same period the average workweek in the plants as a group had lengthened nearly 5 hours (from 41.9 to 46.8), a change which progressively inflated hourly rates as a result of increased premiums for overtime. The actual increase in average hourly earnings is thus somewhat smaller because of the exclusion of premium payments for overtime work. It is estimated that the elimination of such amounts would reduce average rates for the latest period by 8.2 cents or to about 93.5 cents; on this basis average hourly rates, exclusive of premium payments for overtime work, increased by an estimated 18.4 cents, or nearly 25 percent.

#### PLANT AVERAGES

Average hourly earnings, including premium payments for overtime and night work, amounted to \$1.017 for the eight plants as a group. For individual plants the averages varied from 67.5 cents in the case of the one Southern plant to \$1.13 paid by one of the largest establishments in the industry. In three of the plants studied, the figure was over \$1.00. At the other extreme an equal number of plants reported average earnings below 90 cents; only one of these showed rates below 80 cents per hour.

Although there is a general tendency among these plants for average hourly earnings to vary directly with plant size, the relationship is not uniform. Thus, average earnings in plants employing over 500 workers were 9.9 cents above the average of 95.3 cents per hour in plants with fewer than 250 workers, but in plants of the intermediate group (i. e., those which have between 250 and 500 employees) earnings were 19 cents below the corresponding figure for the smaller plants. This apparent wage advantage on the part of workers in the small plants is probably due in part to their organization on a job basis, which involves the employment of larger proportions of skilled workers. The wage advantage of workers in the largest-sized plants was due in part to the prevalence of incentive-wage systems and the relatively greater importance of premium overtime payments.

Substantial variations in the extent to which plant averages are affected by differences in plant size and methods of plant operation, as well as the small number of establishments included in the survey, combine to obscure any possible relationship between size of community and levels of earnings expressed in terms of general plant averages.

#### OCCUPATIONAL DIFFERENCES IN EARNINGS

Average hourly earnings, exclusive of premium payments for overtime and night work, are available for 3,952 workers, who constituted practically all of the day-shift workers in the plants surveyed. For male workers alone, these averages (excluding those for apprentices) ranged from 56.8 cents for class C burrs to \$1.32 for class A layout men (table 3). The general hourly average for all workers in the occupations containing adequate numbers (and distributed among a sufficient number of plants) to warrant detailed study was 91.1 cents. This figure is 2.4 cents below the estimated hourly earnings of 93.5



cents for the industry shown in table 2. This difference is due, at least in part, to the inclusion of shift differentials in the industry average. For male workers alone the average is 91.8 cents, a figure less than 1 cent above that for male and female workers combined.

TABLE 3.—Average Hourly Earnings<sup>1</sup> of Day-Shift Workers in Selected Occupations in Refrigerating-Equipment Plants, July–August 1942

Occupation and class	Number of workers	Average hourly earnings	Occupation and class	Number of workers	Average hourly earnings
All workers.....	3,952	\$0.911	Male workers—Continued.		
Male workers.....	3,835	.918	Lathe operators, turret:		
Acetylene-burner operators.....	24	( <sup>2</sup> )	Class A.....	48	\$1.071
Acid dippers.....	27	.912	Class B.....	39	.934
Apprentices, first year.....	17	.535	Lay-out men, class A.....	21	1.320
Apprentices, second year.....	38	.621	Learners.....	75	( <sup>2</sup> )
Apprentices, third year.....	9	.792	Machinists, class A.....	37	1.240
Apprentices, fourth year.....	5	.838	Metal-saw operators.....	9	.945
Assemblers, bench, class A.....	52	1.011	Milling-machine operators:		
Assemblers, bench, class B.....	99	.914	Class A.....	26	1.097
Assemblers, bench, class C.....	225	.754	Class B.....	114	.985
Assemblers, floor, class A.....	40	1.080	Millwrights, class A.....	24	1.104
Assemblers, floor, class B.....	18	.791	Millwrights, class B.....	14	.943
Assemblers, floor, class C.....	7	.742	Packers.....	29	.796
Boring-mill operators, class A.....	26	1.090	Painters, brush.....	32	.881
Boring-mill operators, class B.....	16	( <sup>2</sup> )	Painters, spray.....	36	.868
Broaching-machine operators.....	10	( <sup>2</sup> )	Patternmakers, wood.....	5	1.244
Buffers.....	62	( <sup>2</sup> )	Pipe fitters.....	45	1.075
Burrers, class B.....	78	( <sup>2</sup> )	Planer operators.....	12	1.060
Burrers, class C.....	16	.568	Platers.....	8	1.048
Carpenters, class A.....	32	.957	Power-shear operators.....	13	.759
Carpenters, class B.....	14	( <sup>2</sup> )	Punch-press operators, class B.....	50	.873
Chippers, class B.....	14	.897	Repairmen, machine.....	48	1.062
Crane operators.....	14	.790	Repairmen, product, class A.....	6	( <sup>2</sup> )
Craters, class A.....	40	.947	Sandblasters.....	8	.903
Craters, class B.....	8	.689	Screw-machine operators:		
Drill-press operators:			Class A.....	34	1.184
Class A.....	47	1.047	Class B.....	47	1.003
Class B.....	86	.937	Shaper operators.....	8	1.027
Class C.....	88	.683	Sheet-metal workers, class A.....	39	1.127
Electricians, class A.....	39	1.098	Sheet-metal workers, class B.....	11	.821
Electricians, class B.....	11	.958	Solderers, class B.....	24	( <sup>2</sup> )
Elevator operators.....	7	.714	Solderers, class C.....	10	.569
Firemen, stationary boiler.....	15	.741	Stock clerks.....	270	.821
Foremen, working, class A.....	29	1.143	Testers, class A.....	8	.906
Foremen, working, class B.....	15	1.039	Testers, class B.....	6	.804
Furnace and oven operators.....	16	.996	Testers, class C.....	13	( <sup>2</sup> )
Grinding-machine operators:			Time clerks.....	21	.869
Class A.....	104	1.153	Tool and die makers.....	95	1.269
Class B.....	72	( <sup>2</sup> )	Tool-grinder operators.....	20	1.030
Helpers, journeymen's and other.....	66	.695	Truck drivers.....	16	.775
Helpers, machine operators.....	67	.678	Truckers, hand.....	56	.654
Inspectors, class A.....	34	1.092	Truckers, power, inside.....	36	.859
Inspectors, class B.....	179	( <sup>2</sup> )	Watchmen.....	84	.791
Inspectors, class C.....	27	.694	Welders, hand, class A.....	57	1.147
Janitors.....	115	.697	Welders, hand, class B.....	47	.925
Job setters.....	102	1.125	Welders, machine.....	45	.721
Laborers.....	98	.711	Woodworkers.....	16	.913
Lathe operators, engine:			Female workers.....	117	.685
Class A.....	43	1.114	Assemblers, bench, class C.....	59	.651
Class B.....	22	1.023	Burrers, class C.....	24	( <sup>2</sup> )
			Drill-press operators, class C.....	34	( <sup>2</sup> )

<sup>1</sup> Averages are based on earnings exclusive of premium payments for overtime.

<sup>2</sup> Number of plants and/or workers too small to justify computation of an average.

Of the male occupational groups with sufficient distribution to warrant special study, 30 showed averages of \$1.00 or more per hour; these groups comprise over 1,100 workers and include nearly all of the skilled employees, or about 30 percent of all male workers, for whom detailed occupational data were compiled. By far the largest of the groups earning averages of \$1.00 or more were the class A grinding-machine operators and job setters. Of the male occupational groups studied, 14 were paid averages under 75 cents per hour; about

17 percent of the male employees, apart from learners and apprentices, were in these occupational classes.

About 5 percent of the workers in the industry are women; average hourly earnings of the 117 in the occupations studied in detail were 68.5 cents. Only 1 occupational group was found in which the number of plants and workers was sufficiently large to warrant the listing of average earnings. The 59 female workers in this group, class C bench assemblers, averaged 65.1 cents per hour.

Average hourly earnings in the five plants which had agreements with nationally affiliated unions were somewhat higher (11.1 cents) than in the three plants in which independent unions were recognized, despite the fact that two establishments in the latter group were among the largest in the industry.

As already stated in connection with plant averages, a tabulation of wage rates on a regional basis is not possible, because of the small proportion of the industry situated outside the North Central region. The one Southern establishment studied showed a marked difference as compared with the other plants in the industry. Despite payment on an incentive basis, averages in the Southern plant were more than 25 cents below the figure for the other seven plants as a group.

TABLE 4.—Average Hourly Earnings<sup>1</sup> of Day-Shift Male Workers in Refrigerating-Equipment Plants, by Occupation and Size of Plant, July-August 1942

Occupation and class	Average hourly earnings in plants employ- ing—		Occupation and class	Average hourly earnings in plants employ- ing—	
	500 work- ers or less	Over 500 work- ers		500 work- ers or less	Over 500 work- ers
Number of workers <sup>2</sup> .....	566	3,269	Inspectors, class A.....	\$0.917	\$1.146
Average hourly earnings <sup>2</sup> .....	\$0.740	\$0.949	Inspectors, class B.....	.726	.995
Assemblers, bench, class B.....	\$0.689	\$0.957	Janitors.....	.498	.729
Assemblers, bench, class C.....	.603	.811	Laborers.....	.514	.759
Assemblers, floor, class A.....	.933	1.129	Lathe operators, turret:		
Assemblers, floor, class B.....	.661	.876	Class A.....	1.123	1.011
Carpenters, class A.....	.659	1.042	Class B.....	.851	.986
Drill-press operators:			Packers.....	.614	.891
Class A.....	.928	1.061	Painters, spray.....	.645	.933
Class B.....	.723	.951	Punch-press operators, class B.....	.652	.903
Class C.....	.649	.811	Sheet-metal workers, class A.....	1.139	1.122
Foremen, working, class A.....	1.155	1.133	Stock clerks.....	.709	.833
Helpers, machine operators <sup>2</sup> .....	.634	.685	Tool and die makers.....	1.288	1.268
			Truck drivers.....	.634	.840

<sup>1</sup> Averages are based on earnings exclusive of premium payments for overtime.

<sup>2</sup> Includes workers in occupations not shown separately below.

No conclusion can be drawn concerning the effect of the use of incentive methods on average hourly earnings from a study of the four plants where such systems were in operation. The averages in such plants, as a group, were considerably higher than those for establishments which paid on the basis of hourly rates, but no precise estimate of the effect on earnings of wage-payment methods can be made because of the greater influence of other factors such as geographical location and plant size. Likewise, the small number of establishments covered by the study, as well as the other factors mentioned in connection with plant averages, does not permit comparisons of hourly average earnings between the larger and smaller communities.

Occupational rates do tend, however, to vary significantly in relation to the average number of workers employed per plant, despite the fact that, as already noted in analyzing plant averages, the relationship is by no means uniform. In order to compare occupational rates in the larger and smaller plants, workers in each of the classifications which contain adequate numbers to permit reliable comparisons are divided into two groups—those in plants with less than 500 employees and those in the larger plants. All the establishments which fall into the latter group have over 1,000 workers each. For the 566 employees of plants with less than 500 workers, average hourly earnings were 74.0 cents, while the corresponding figure for the 3,269 workers in the larger plants as a group was 94.9 cents (table 4). In many occupations, the numbers of workers are insufficient to permit reliable comparison of hourly rates between plants of different size groups, and the distribution of occupations between the small and large plants is so uneven that comparative rates are difficult to compute.

There are 23 occupational groups, however, in which the numbers of employees are believed to be adequate for comparisons between the large and small plants. For 19 of these occupations, the averages for workers in the large plants are higher than the corresponding figures for the small establishments; in 13 instances the differences between the 2 plant groups are more than 20 cents per hour. For 4 highly skilled occupations, the averages were higher in the small plants; however, in only one instance was the difference more than 2.2 cents per hour.

It should be noted that, with the shift to war production and the virtual cessation in the production of many refrigerator products, a considerable modification in occupational patterns resulted; one plant reported an entirely different pattern after conversion. As far as possible, however, existing wage structures were retained.



## MONTHLY EARNINGS OF MEMBERS OF AMERICAN CHEMICAL SOCIETY, 1941

IN 1941 the median monthly salary rate of members of the American Chemical Society was \$271. Above this level, one-fourth had earnings in excess of \$383 a month, and one-tenth earned more than \$558 a month. On the other hand, whereas one-tenth earned less than \$159 a month, one-quarter earned less than \$205 a month.

Over the period 1926 to 1941, median monthly salary rates of the membership rose from 1926 to 1929, declined over the period 1929 to 1934, and steadily increased from 1937 to 1941.

In 1941 members newly entered into the profession earned an average of \$140 per month. From that point earnings rose steadily, with the years of experience. The peak average earnings reported, \$445 per month, were those of members who had been in the profession for 39 years. Above that point the median salary declined somewhat, to \$405 after 42 years' service.

The average earnings of male members were greater, by from \$2 to \$39 per month, than those of female members in every experience group. The latter reached their maximum earning capacity of \$330 some 5 years earlier than did the male members, or after they had had between 32 and 36 years of experience.



The above data are based upon a recent report on monthly salary rates, for each of 9 selected years in the period 1926-41, of regular and junior members of the American Chemical Society.<sup>1</sup> The data were obtained from these members by means of a mail questionnaire. For the year 1941, 19,009 (77.6 percent) usable returns were received from the total mailing list of 24,990 members. Similar proportions of usable returns were received for the other years.

The data obtained can be considered as representative of the members of the American Chemical Society. The fact, however, that the usable returns contain a bias in favor of older members with relatively high educational qualifications precludes the assumption that these earnings are typical of the chemical profession as a whole or even of its principal components—chemistry and chemical engineering.

### *Trend of Salaries, 1926 to 1941*

The monthly salary rates, irrespective of years of professional experience, are presented in table 1 for each of the 9 selected years. These represent the earnings of the members for the time they were actually employed in their major fields, and are exclusive of fees and bonuses.

TABLE 1.—Comparison of 5 Levels of Monthly Salary Rates, in Period 1926-41, of All Members Reporting

Percent of members at specified income level	Monthly salary rates of more than specified amount in—								
	1941	1940	1939	1938	1937	1934	1932	1929	1926
10 percent.....	\$558	\$527	\$515	\$504	\$497	\$486	\$490	\$556	\$518
25 percent.....	383	358	345	335	327	320	330	362	342
50 percent.....	271	252	243	234	224	216	227	249	238
75 percent.....	205	180	168	160	153	135	147	173	166
90 percent.....	159	134	117	104	(1)	(1)	(1)	113	109
Indexes (1941=100)									
10 percent.....	100.0	94.4	92.3	90.3	89.1	87.1	89.4	99.6	92.8
25 percent.....	100.0	93.5	90.1	87.5	85.4	83.6	86.2	94.5	89.3
50 percent.....	100.0	93.0	89.7	86.3	82.7	79.7	83.8	91.9	87.8
75 percent.....	100.0	87.8	82.0	78.0	74.6	65.9	71.7	84.4	81.0
90 percent.....	100.0	84.3	73.6	65.4	(2)	(2)	(2)	71.1	68.6

<sup>1</sup> Under \$100.

<sup>2</sup> Less than 62.9 percent.

Monthly earnings rose from \$238 in 1926 to \$249 in 1929, but in the succeeding 5-year period declined to \$216 in 1934, rising again to \$224 in 1937. In each of the years 1937 to 1940, the rate of increase in median monthly salary rates was as great as it had been over the whole period 1934 to 1937. From 1940 to 1941 the rate of increase in

<sup>1</sup> For detailed information see Chemical and Engineering News, issues of October 25, November 25, December 10, and December 25, 1942: The Economic Status of the Members of the American Chemical Society, by Andrew Fraser, Jr. Reprints of the complete report can be obtained from the Mack Printing Co., Easton, Pa., for 25 cents per copy.

The organization of this survey and the report were based on the survey of the engineering profession conducted by the Bureau of Labor Statistics in 1935, the results of which were published as Bulletin No. 682: Employment and Earnings in the Engineering Profession 1929 to 1934, by Andrew Fraser, Jr.

median monthly earnings was nearly twice as great, rising by \$19 from \$252 to \$271 a month.

In each of the years prior to 1941, the median monthly earnings were less than in 1941 by amounts that ranged from 8.1 percent in 1939 to as high as 20.3 percent in 1934. A similar situation also prevailed at the two upper and the two lower earnings levels. Also, in each of the 9 years, although the monthly incomes of the upper tenth and upper fourth of the members reporting were on the average, respectively, 2.1 and 1.4 times as great as the median monthly incomes, those of the lower fourth and lower tenth were less than the median earnings by approximately one-third and one-half.

### Salary in Relation to Experience

Earning capacity was found to increase with years of professional experience. At any point in a particular experience span, however, the spreads in earnings were considerable.

In the case of monthly salary rates reported for 1941, for example median earnings advanced steadily from \$140 a month for members just beginning their professional work to \$445 a month for members who had been professionally active for 39 years (table 2). The entrance rates of those in the upper and lower quarters were, respectively, 16 percent greater and 16 percent less than the median entrance rates. After 39 years of experience, the monthly salary rate of those in the upper fourth had advanced from \$156 to \$684 a month, and of those in the lower fourth had advanced from \$125 to \$317 a month. At this level of experience, while the upper quartile monthly salary exceeded the median salary rate of the group by 54 percent, the lower quartile rate was 16 percent less. This situation was common to all years prior to 1941 for which monthly salary rates were reported.

Table 2.—Comparison of 5 Levels of Monthly Salary Rates in 1941 of All Members Reporting, by Year of Entering Profession

Year of and years after entering profession	Proportion with monthly salary rates or more than specified amount in 1941				
	10 percent	25 percent	50 percent	75 percent	90 percent
Prior to 1900 (42 years).....	(1)	\$741	\$405	\$246	(1)
1900-04 (37-41 years).....	(2)	684	445	317	\$242
1905-09 (32-36 years).....	(2)	659	439	313	251
1910-14 (27-31 years).....	(2)	626	423	307	231
1915-19 (22-26 years).....	\$826	567	398	300	234
1920-23 (18-21 years).....	666	480	361	276	219
1924-27 (14-17 years).....	517	414	323	251	201
1928-31 (10-13 years).....	417	327	275	221	185
1932-34 (7-9 years).....	332	280	238	202	162
1935-36 (5-6 years).....	278	248	213	175	150
1937 (4 years).....	257	222	189	161	133
1938 (3 years).....	241	203	174	151	124
1939 (2 years).....	214	187	164	144	115
1940 (1 year).....	203	175	156	136	112
1941 (½ year).....	187	156	140	125	102

<sup>1</sup> Fewer than 100 members reported.

<sup>2</sup> Over \$1,000.

Other data not here shown clearly indicated that members with few years of professional experience in 1941 were moving away from the low levels of earnings of prior years and approaching the high levels of earnings in 1926 and 1929 at a relatively much faster rate than the members who had had longer years of experience. However, at no level of earnings or experience in 1941 had the membership reached the

monthly salary rates which obtained in 1929, except in the case of the 90-percent earnings level after 5 years of service in the profession. Despite the lack of data it is reasonable to assume that this movement was even more pronounced for members with experience spans of less than 5 years.

The low point of monthly salary rates of the membership varied with both the experience level and the earnings level. For example, for members with 5 years' experience both the decline and rise in earnings over the period 1926 to 1941 were quite sharp. The low point of median earnings of \$154 a month for this experience level was reported in 1934. By 1941 the monthly rate had advanced to \$200. These earnings, however, were less by \$9 and \$15 a month than those of members similarly situated in 1926 and 1929, respectively.

For members whose experience spans covered 10 years, the lowest median earnings reported were in 1937; they remained at this level through 1938 and rose to \$257 a month in 1941. Again in 1926 and 1929 it was noted that the earnings of members with 10 years' professional experience exceeded those reported in 1941 by \$30 and \$21 a month, respectively.

At the 20 years' experience level the lowest point of median earnings was reached also in 1937, but in the case of members with 30 years' service median monthly earnings remained stationary at \$410 a month over the period 1934 to 1938. At neither of these experience levels did median monthly earnings exceed those reported by members with similar years of experience in 1926 to 1929.

In general, the preceding patterns of movements noted for median monthly earnings of the membership were paralleled at the two upper and the two lower earnings levels.

### *Salary in Relation to Sex*

The monthly salary rates reported for 1941 show that significant differences in earnings capacity existed among the several classes of members of the American Chemical Society (table 3).

With advancing years of professional experience, median earnings for the membership as a whole in 1941 steadily advanced from \$140 per month for those just beginning their professional careers and reached a maximum of \$445 a month at from 37 to 41 years after entering the profession. Within these same limits of experience, however, median earnings of male regular members advanced from \$160 to \$451 per month. Between all reporting members and all reporting male regular members the sharpest differences in median monthly salary rates occurred at the experience spans of one-half year and 1 year; at these respective points the differences in earnings in favor of the latter were \$20 and \$39 per month. In all succeeding experience groups the differences continued to favor the male regular members and ranged from \$2 to \$7 per month.

Between male regular and female regular members there were, however, significant differences in median monthly earnings in 1941 which were also in favor of the males. Furthermore, the earning capacity of female regular members reached a maximum 5 years earlier (at from 32 to 36 years) than that previously noted to be the case for male regular members (from 37 to 41 years). At their maximum point of earnings, median monthly salary rates reported by female regular members were \$330, or \$117 a month less than the median earnings of \$447 a month reported by male regular members with



corresponding years of experience. For the experience groups, 22-36 and 27-31 years, the corresponding differences in earnings, still in favor of male regular members, were \$140 and \$153 a month. At all six earlier experience spans among which comparisons of earnings could be made, similar margins existed, ranging from \$33 a month at 14-17 years' experience to \$91 a month at 10-13 years.

TABLE 3.—Comparison of Median Monthly Salary Rates in 1941 of Four Classes of Members Reporting, by Year of Entering Profession

Year of and years after entering profession	Median monthly salary rate			
	All members	Male regular members	Female regular members	Male junior members
1941 (½ year).....	\$140	\$160	(1)	\$140
1940 (1 year).....	156	195	(1)	154
1939 (2 years).....	164	173	(1)	162
1938 (3 years).....	174	181	(1)	164
1937 (4 years).....	189	194	\$148	174
1935-36 (5 to 6 years).....	213	215	163	193
1932-34 (7 to 9 years).....	238	240	166	214
1928-31 (10 to 13 years).....	275	279	188	220
1924-27 (14 to 17 years).....	323	330	198	247
1920-23 (18 to 21 years).....	361	367	225	270
1915-19 (22 to 26 years).....	398	412	272	(1)
1910-14 (27 to 31 years).....	423	426	273	(1)
1905-09 (32 to 36 years).....	439	447	330	(1)
1900-04 (37 to 41 years).....	445	451	275	(1)
Prior to 1900 (42+ years).....	405	400	(1)	(1)

<sup>1</sup> Fewer than 10 members reported.

The median monthly earnings of male junior members in 1941 even exceeded those of female regular members for the experience spans of 4 years to 18-21 years by amounts that ranged from \$26 to \$55 a month. Between the reported earnings of male regular and male junior members there were also significant differences. In 1941 male junior members who had just begun their professional work were earning \$140 a month, whereas male regular members were earning \$20 a month more, or \$160 a month. Four years later the median monthly earnings of these two classes of members, also in 1941, were, respectively, \$174 and \$194 a month; again a difference of \$20 a month in favor of male regular members. At from 18 to 21 years after entering the profession the margin had increased to \$97 a month. Male regular members in this experience span group reported median monthly earnings of \$367 a month in contrast to \$270 a month for male junior members.

Differences in professional activities may account not only for the margins that existed in 1941 between monthly earnings of male regular and those of male junior members, but also for the margins between earnings of male regular and of female regular members. In the latter case, however, the wide discrepancy indicates the desirability of detailed consideration to determine whether or not an improvement could be effected in the earnings level of the female regular members.

### SALARIES OF PUBLIC HEALTH NURSES, JANUARY 1942 <sup>1</sup>

MEDIAN monthly salaries of generalized staff nurses in State, county, and municipal health departments and in nonofficial public health agencies in January 1942 ranged from \$126 for 1,757 generalized

<sup>1</sup> The data in this article are from Public Health Nursing, monthly journal of the National Organization for Public Health Nursing (New York), issues of August and December 1942.

staff (field) nurses in State departments of health to \$157 for 2,320 generalized staff nurses in municipal health departments, according to a survey made by the National Organization for Public Health Nursing, covering 687 public health agencies employing 12,177 nurses, including directors and supervisors. For specialized staff nurses, median monthly salaries ranged from \$132 for 494 nurses in municipal health departments to \$142 for 151 nurses in nonofficial agencies. Salaries of school nurses in departments of education were tabulated on an annual basis. The median yearly salary of 1,131 generalized school nurses was \$1,763, and of 42 specialized school nurses, \$1,820. Salaries for the several classes of positions covered by the survey varied considerably from one section of the country to another as well as among the different types and sizes of organizations.

The following table shows median salaries of generalized staff nurses in county and municipal health departments, departments of education, and nonofficial public health agencies, together with the number of nurses in the samples, by size of staff, in January 1942.

*Median Salaries of Generalized Public Health Staff Nurses, January 1942*

Generalized nurses on staff	Nonofficial agencies		Municipal health departments		County health departments		Departments of education	
	Number of nurses	Median monthly salary	Number of nurses	Median monthly salary	Number of nurses	Median monthly salary	Number of nurses	Median yearly salary
All agencies.....	2,893	\$134	2,320	\$157	827	\$135	1,131	\$1,763
Agencies employing—								
100 or more nurses.....	861	138	1,596	170				
50-99 nurses.....	474	138	219	155	134	132	287	1,985
25-49 nurses.....	406	132	165	116	105	156	233	1,768
15-24 nurses.....	363	127	107	133	127	130	206	1,564
10-14 nurses.....	239	132	126	135	130	131	57	1,770
5-9 nurses.....	354	127	62	146	240	134	180	1,670
2-4 nurses.....	166	130	40	149	82	134	124	1,558
1 nurse.....	30	153	5	142	9	150	44	1,692

<sup>1</sup> Actual salary of middle person used because of small sample.

In the 42 State departments of health covered by the survey, but which are not included in the table, monthly salaries of the 1,757 generalized field nurses ranged from \$75 to \$210. The largest number, 724, were in the \$120-\$129.99 salary group. Also in this salary group were about half of the 265 specialized field nurses, whose salaries ranged from \$90 to \$190, with a median of \$130.



## RATES OF PAY IN AUSTRALIA, JUNE 30, 1942

MINIMUM weekly rates of pay for adult male workers in Sydney and Melbourne, Australia, are shown for June 30, 1942, in a publication of the Commonwealth Bureau of Census and Statistics.<sup>1</sup> The rates are those for a normal 44-hour week and were provided by award, determination, or agreement. Weekly rates of pay for selected industries and occupations are given in the accompanying table.

<sup>1</sup> Australia. Bureau of Census and Statistics. Labor and Industrial Branch. Statement Showing Minimum Rates of Wage and Ordinary Hours of Labor for Adult Male Workers in Sydney and Melbourne, Australia, at June 30, 1942. Mimeographed.

## Minimum Rates of Pay for Adult Male Workers in Sydney and Melbourne, June 30, 1942

Industry and occupation	Weekly rates of pay		Industry and occupation	Weekly rates of pay	
	Sydney	Melbourne		Sydney	Melbourne
Engineering, metalworks, etc.:			Clothing, hats, boots, etc.:		
Boilermaking:	s. d.	s. d.	Bootmaking:	s. d.	s. d.
Boilermakers.....	129 0	128 0	Bootmakers.....	121 6	121 6
Helpers.....	105 0	104 0	Tailoring (order):		
Laborers.....	93 0	92 0	Cutters.....	172 6	130 0
Brassworking:			Pressers.....	120 0	120 0
Finishers.....	117 0	116 0	Tailors.....	120 0	120 0
to.....	129 0	128 0	Tailoring (ready-made):		
Molders.....	105 0	104 0	Cutters.....	123 0	123 0
to.....	129 0	128 0	Pressers (coat).....	120 0	120 0
Electrical installation:			Tailors.....	120 0	120 0
Armature winders.....	129 0	128 0	Trimmers.....	120 0	120 0
Fitters.....	129 0	128 0	Textile working (woolen mills):		
Linemen.....	120 0	119 0	Carders.....	100 0	100 0
Mechanics.....	129 0	128 0	Dye-house men.....	101 0	101 0
Wiremen.....	120 0	119 0	Laborers (general).....	100 0	100 0
Electrical supply:			Scourers.....	101 0	101 0
Armature winders.....	129 0	128 0	Spinners.....	100 0	100 0
Instrument makers.....	129 0	128 0	to.....	101 0	101 0
Linemen.....	126 0	125 0	Tuners.....	118 0	118 0
Shift electricians.....	129 0	128 0	to.....	102 0	102 0
Engineering:			Warpers.....	102 0	102 0
Blacksmiths.....	130 0	129 0	Building:		
Brass finishers.....	129 0	128 0	Bricklayers.....	137 6	142 10
Coppersmiths.....	129 0	128 0	Carpenters.....	137 6	129 0
Fitters.....	129 0	128 0	Masons (stone).....	140 6	124 0
Laborers.....	105 0	104 0	Painters.....	130 6	130 6
Pattern makers.....	137 0	136 0	Paperhangers.....	130 6	130 6
Shapers.....	130 0	129 0	Sign writers.....	137 10	130 6
to.....	105 0	104 0	Plasterers.....	140 0	138 9
Strikers.....	107 0	106 0	Plumbers.....	137 8	140 10
Turners.....	126 0	125 0	Laborers:		
Molding (iron):			Bricklayers.....	99 0	98 0
Core makers.....	108 0	107 0	Carpenters.....	99 0	98 0
to.....	129 0	128 0	Concrete workers.....	99 0	98 0
Laborers.....	105 0	104 0	Earth excavators.....	99 0	98 0
Molders.....	108 0	107 0	Gear workers.....	105 0	104 0
to.....	129 0	128 0	Scaffold hands.....	105 0	104 0
Molding (steel):			Transport:		
Core makers.....	129 0	128 0	Carrying—merchandise:		
Laborers.....	105 0	104 0	Carters—		
Molders.....	129 0	128 0	1 horse.....	104 0	101 0
Sheet-metal working:			2 horses.....	109 0	106 0
Canister makers.....	108 0	107 0	Stable hands.....	103 6	98 0
Machinists.....	104 0	103 0	to.....	108 6	106 0
Solderers.....	104 0	103 0	to.....	106 0	110 0
and.....	108 0	107 0	Motor lorries and wagons under 3 tons.....	116 0	110 0
Tinmiths.....	117 0	116 0	to.....	120 0	113 0
and.....	129 0	128 0	to.....	124 0	
			Wharf labor:		
			Wharf laborers (per hour).....	3 6	3 6
				to.....	to.....
				4 2	4 2

## WEEKLY EARNINGS IN GREAT BRITAIN AND NORTHERN IRELAND, JULY 1942

WAGE earners had average earnings of 85s. 2d. weekly, in manufacturing and nonmanufacturing industries of Great Britain and Northern Ireland, in the week ended July 18, 1942. As compared with October 1938, when the weekly average was 53s. 3d., the level of



earnings had increased 59.9 percent. The July 1942 study<sup>1</sup> is the fifth in a series of which the 1938 investigation was the first. Four of the surveys cover periods since the outbreak of the war. In July 1940 average weekly earnings were 69s. 2d.; in July 1941, they amounted to 75s. 10d.; and in January 1942, they were 77s. 9d.

Factors accounting for the considerable rise in the average weekly earnings of wage earners between October 1938 and July 1942 are the increases in rates of pay; fuller employment, with longer working hours and more extended night-shift work; extension of systems of payment by results; and changes in the proportions of men, boys, women, and girls employed in different industries and occupations. Wage-rate increases over October 1938 are officially estimated at approximately 10 or 11 percent for a full ordinary week's work, up to July 1940; 18 percent to July 1941; 22 percent to January 1942; and 24 percent to July 1942. The differences between these percentages and the 30-percent, 42-percent, 46-percent, and 60-percent rises, respectively, in average weekly earnings, represent the net effects of the other factors already listed.

Working hours have been lengthened in establishments producing munitions, in order to speed up output as much as possible. Weekly hours in recent months have been far in excess of those worked in October 1938, when employment was normal and there was little overtime, and when there was a considerable amount of short-time work in some industries. Piece work and various forms of bonus payment have been extended markedly during the war. In consequence, increases in earnings have been more than proportionate to the additional working hours. Payments for overtime, night shifts, and week-end work at rates in excess of the normal pay, and increased earnings of workers employed at piece-work rates or on other systems of payment by results, have contributed to the advance. The extra charges arising from these higher earnings have, of course, been spread over a higher output.

Wartime changes in the numbers employed in different industries have tended to raise the general level of average earnings for men, boys, women, and girls, respectively, through labor transference from industries and occupations with relatively low earnings to those with a higher level of earnings. Percentage rises in earnings of all classes of labor taken together are affected by the declining proportion of men and the rising proportion of women. Actual increases in the average earnings between October 1938 and July 1942 are given below, and also the changes that would have occurred if the ratios of men, women, boys, and girls had remained the same in July 1942 as in October 1938 in the different industries.

	Percent of increase in average earnings	
	Actual	Weighted (hypothetical)
All workers-----	59.9	52 to 53
Men, aged 21 years and over-----	61.5	53
Boys-----	77.0	69
Women, aged 18 years and over-----	66.7	51
Girls-----	63.5	59

In the above comparison by the British Ministry of Labor, "weights" were used corresponding with the estimated number employed in the various industries in October 1938.

<sup>1</sup> Data are from Great Britain, Ministry of Labor Gazette (London), December 1942.

The wage data on which the average weekly earnings for July 1942 are based were obtained from 55,400 establishments, and covered over 6,250,000 wage earners. Wage statistics are given, by industry and main industrial groups, in the following table, covering adult male and female workers separately and all employees combined (including boys and girls), for the week ended July 18, 1942; the percentage changes from October 1938 are also shown.

*Average Earnings,<sup>1</sup> by Industry, in Great Britain and Northern Ireland, Week Ended July 18, 1942, and Percent of Change over October 1938*

Industry	Men (21 and over)		Women (18 and over)		All workers <sup>2</sup> (including boys and girls)	Percent of increase over last pay week in October 1938				
			Other than part time <sup>1</sup>	Part time <sup>2</sup>		Men (21 and over)	Women (18 and over)		All workers <sup>2</sup>	
	s.	d.			s.		d.	s.		d.
Iron, stone, etc., mining and quarrying:	s.	d.	s.	d.	s.	d.				
Iron ore and ironstone mining, etc.	100	2			94	6	55.3			53.2
Stone quarrying and mining	87	8			83	5	43.7			45.5
Clay, sand, gravel, and chalk pits	89	7			83	9	57.9			54.4
Other mining and quarrying	92	6			80	6	55.2			46.6
Treatment of nonmetalliferous-mining products:										
Coke ovens and by-product works	106	3			100	9	50.0			48.0
Artificial stone, concrete, etc.	103	2	53	3	86	4	62.0	79.0	78.4	52.6
Cement, limekilns, and whiting	101	2	53	2	91	8	50.8			44.7
Brick, pottery, and glass industries:										
Brick, tile, pipe, etc.	91	5	44	8	77	10	48.2	56.3	56.0	47.3
Pottery, earthenware, etc.	91	4	42	3	57	10	49.9	51.8	51.8	57.0
Glass and glass-bottle manufacture	108	1	47	0	76	10	57.2	73.5	74.2	43.8
Chemical, paint, oil, etc., industries:										
Chemicals and explosives	110	0	57	10	81	0	58.8	77.5	76.7	50.9
Paint, varnish, red lead, etc.	94	5	44	2	75	10	45.6	46.4	46.1	40.0
Oil, glue, soap, ink, matches, etc.	104	6	51	2	82	2	49.3	54.3	53.5	42.1
Metal, engineering, and shipbuilding industries:										
Pig-iron manufacture (blast furnaces)	111	3			106	1	34.8			32.7
Iron puddling, steel smelting, rolling, etc.	123	3	60	8	108	5	54.2			48.2
Nonferrous-metal manufacture	121	2	59	8	103	5	69.5	88.4	88.4	64.2
Tinplate and steel-sheet manufacture	117	10	46	3	95	4	40.4	32.5	32.5	33.5
Iron and steel tubes	115	11	54	8	98	11	63.1	85.8	85.6	56.2
Wire, wire netting, wire ropes, etc.	114	9	51	7	89	1	67.7	76.4	76.4	61.2
Engineering, etc.:										
General engineering, and engineers' iron and steel founding	121	7	60	7	95	8	65.0	88.8	88.6	58.3
Electrical engineering	123	11	56	6	83	0	66.5	74.3	73.8	63.3
Marine engineering	118	1	60	3	100	1	57.3			62.1
Construction engineering	113	11	55	9	97	7	58.2			56.3
Motor-vehicle, cycle, and aircraft manufacturing and repair	147	5	68	11	116	2	77.4	71.9	71.3	64.4
Shipbuilding and repairing	127	4	57	9	112	6	81.7			87.8
Railway carriage and wagon and tram building, etc.	117	0	58	3	97	7	62.9			57.4
Electric cables, apparatus, lamps, etc.	112	4	54	0	75	5	53.9	51.4	51.2	50.6
Hand tools, cutlery, saws, files, etc.	113	6	48	3	77	4	66.1	72.8	72.8	71.5
Bolts, nuts, screws, rivets, nails, etc.	110	7	55	3	74	10	71.4	85.2	84.9	76.8
Brass and yellow-metal goods	113	1	54	5	82	11	64.3	78.4	78.4	68.6
Heating and ventilating engineering	114	7			91	11	50.1			35.5
Watches, clocks, plate, jewelry	104	11	47	3	73	1	47.6	54.1	54.3	52.0
Other metal industries	125	0	57	9	86	8	78.8	82.8	82.3	75.7
Textile industries:										
Cotton	89	1	51	2	59	11	75.2	62.9	62.6	68.4
Woolen and worsted	89	1	49	0	62	2	54.9	56.8	56.8	59.4
Silk throwing, spinning and weaving (including artificial-silk weaving)	98	9	48	2	62	10	59.1	55.4	55.1	61.5
Artificial-silk spinning	108	4	50	4	80	2	46.4	78.2	78.2	53.4
Flax spinning and weaving	75	11	35	0	41	3	58.6	30.1	30.1	42.2
Jute spinning and weaving	78	7	45	11	51	1	54.1	35.0	35.0	40.3
Hemp, rope, cord, twine, etc.	97	4	43	6	52	4	73.0	56.8	56.2	67.9
Hosiery	106	2	52	1	56	7	34.5	41.4	41.4	40.3
Lace	92	11	43	5	59	6	54.0	44.7	44.4	49.1
Carpets and rugs	80	3	48	9	56	1	31.7	33.9	33.6	44.1
Other textiles	94	10	46	5	55	5	59.2	51.4	51.6	60.2
Textile bleaching, printing, dyeing, etc.	87	4	43	2	68	1	52.5	50.6	50.6	49.9

<sup>1</sup> The part-time workers referred to are those who were employed for not more than 30 hours a week, and had entered the employment of the firms concerned since July 1941.

<sup>2</sup> In calculating the averages in this column, the women employed as part-time workers (see note 1 above) have been included on the basis of 2 such workers taken as representing one full-time worker.

Average Earnings, by Industry, in Great Britain and Northern Ireland, Week Ended July 18, 1942, and Percent of Change over October 1938—Continued

Industry	Men (21 and over)		Women (18 and over)		All workers (including boys and girls)	Percent of increase over last pay week in October 1938					
			Other than part time	Part time		Men (21 and over)	Women (18 and over)		All workers		
	s.	d.					s.	d.		s.	d.
Leather, leather goods, and fur industries:	s.	d.	s.	d.	s.	d.					
Tanning, currying, and dressing	96	4	48	11	48	10	78	5	53.9	62.6	45.9
Leather-goods manufacture	89	4	45	1	45	0	55	0	45.3	45.8	57.9
Fur dressing, etc.	102	2	51	3	50	11	67	10	22.5	11.2	21.
Clothing industries:											
Tailoring:											
Ready-made and wholesale custom-made	98	11	50	11	50	11	52	8	43.4	53.9	53.0
Retail custom-made—											
10 or more workers	92	19	46	4	46	5	55	10	26.4	20.1	24.8
Less than 10 workers	83	2	46	3	46	4	58	3	35.8	36.0	34.7
Dress and millinery:											
10 or more workers	97	6	50	5	50	4	45	9	42.7	41.4	40.8
Less than 10 workers	48	5	48	5	48	5	44	5	36.1	36.1	53.2
Hats and caps (including straw plait)	96	5	49	8	49	6	60	10	47.2	54.4	53.9
Shirts, collars, underclothing, etc.	85	2	44	0	44	0	41	8	29.0	37.1	37.1
Other dress industries	87	8	47	3	47	3	47	6	39.5	42.1	46.9
Boot, shoe, and slipper making and repairing:											
10 or more workers	93	3	51	1	51	1	65	11	44.4	33.8	44.1
Less than 10 workers	84	9					70	0	42.0		34.8
Laundries:											
10 or more workers	86	5	42	1	42	3	43	11	42.4	49.9	49.7
Less than 10 workers			34	0	34	3	35	11	45.7	46.8	45.1
Dyeing, dry cleaning, etc.	83	10	44	4	44	1	50	8	37.4	43.4	43.4
Food, drink and tobacco industries:											
Bread, biscuits, cake, etc.:											
10 or more workers	94	9	45	4	45	5	66	11	46.0	37.7	47.3
Less than 10 workers	90	9	42	0	42	3	66	11	53.4	48.2	49.1
Grain milling	93	2	41	7	44	6	78	11	46.5	50.3	37.4
Cocoa, chocolate, and sugar confectionery	105	3	48	9	48	8	63	7	41.3	42.0	41.8
Other food industries	96	5	45	9	45	7	65	0	49.0	48.0	47.4
Drink industries	88	5	42	1	42	1	67	7	38.0	49.8	49.8
Tobacco, cigars, cigarettes, etc.	105	9	51	7	51	7	58	11	25.5	26.6	23.8
Woodworking:											
Millsawing and machine joinery	94	7	54	2	54	0	78	0	51.3	60.1	59.6
Wood box and packing case	99	10	53	0	52	10	71	2	50.1	58.6	58.1
Cabinetmaking, furniture making, upholstery, etc.:											
10 or more workers	95	11	51	5	51	4	71	1	39.7	47.6	47.4
Less than 10 workers	86	2	45	4	45	5	67	11	38.4	35.0	35.2
Carriages, carts, etc.	110	1	55	8	55	6	85	5	50.1	82.0	81.5
Other woodworking	95	0	49	4	49	1	71	3	46.9	75.7	74.8
Paper, printing, etc., industries:											
Paper and paper board	102	6	44	4	44	4	77	6	55.1	39.3	39.3
Wallpaper	82	1					69	8	30.5		55.1
Cardboard boxes, paper bags, and stationery	98	8	46	5	46	4	58	9	32.0	39.6	39.3
Stationery and typewriting requisites (not paper)	101	3	48	5	48	2	61	9	33.3	47.1	46.3
Printing, publishing, and bookbinding	108	5	44	2	44	1	78	9	18.3	25.6	25.4
Building, contracting, etc.:											
Building	98	6	50	7	50	7	91	4	48.1		48.7
Public works contracting, etc.	106	6	55	0	55	0	100	10	69.5		64.6
Electrical contracting	118	9					88	8	50.0		56.2
Miscellaneous manufacturing industries:											
Rubber	114	6	55	1	55	0	85	4	60.7	69.9	69.7
Oilcloth, linoleum, etc.	85	11	48	6	48	5	72	3	38.2	55.2	54.9
Brushes and brooms	92	7	46	1	46	1	57	9	50.5	45.1	45.1
Scientific and photographic instruments and apparatus	123	5	54	4	54	3	82	0	66.2	61.4	61.1
Musical instruments, toys, games and sports requisites	96	4	42	10	42	10	65	1	38.9	42.8	42.8
Other industries	108	2	49	10	49	9	68	11	58.1	58.2	57.9
Transport, storage, etc.:											
Tramway and omnibus service and other road passenger transport	98	11	69	6	69	5	88	11	37.1	90.8	90.6
Goods transported by road	96	8	55	8	55	6	89	0	45.9		43.4
Dock, harbor, canal, etc., service	111	0	44	7	44	8	106	9	47.8		46.2
Warehousing, storage, etc.	97	6	44	2	44	6	86	4	52.7	29.9	30.9
Public utility services:											
Gas supply	92	1	47	11	47	11	86	2	33.5	69.1	69.1
Water supply	86	5					84	7	32.9		32.2
Electricity supply	97	0	56	7	56	7	90	5	33.9		31.5
Local authorities (nontrading) services	77	10	41	2	41	2	70	2	34.4	48.3	48.3
Government industrial establishments	122	0	66	10	66	9	95	0	62.3	49.3	49.2



## WAGES AND HOURS IN PORTUGAL

THE Portuguese Government, in its laws relating to industrial associations, gave to the workers' syndicates and the associations of employers the function of drawing up collective "contracts," including provisions relating to wages, subject to approval of the Government. Authority to fix minimum wages was given to the Undersecretary of State for Corporations, in a decree-law of August 1, 1935. This decree was amended on September 17, 1938, by a decree-law which gave to the Undersecretary of State for Corporations and Social Welfare the authority to fix minimum rates of salaries as well as wages. The latter decree stated that minima might be established wherever there is a regular decline "on account of unrestricted competition," or "where for any other reason whatever salaries or wages fall below a reasonable rate."

The decree of September 17, 1938, stated that the fixing of minimum salary or wage rates would not affect higher rates already adopted. The administration of minimum-wage orders was assigned to the National Labor and Provident Institution, and numerous minimum-wage orders have been issued. The extent and efficiency of enforcement cannot be ascertained with exactness under present conditions. The information available is not sufficient to ascertain the relative levels of minimum rates and of the previously existing rates. The range of rates in the textile industry in 1931 indicates that the lowest rates at that time were not significantly below the minimum rates of certain textile occupations as established in 1936.

### *General Wage Levels and Living Standards*

Wage information for Portugal is very limited. For farming, periodic wage reports are published by the Government. For other industries the data available are from scattered sources, the most complete dealing with the earlier 1930's. It is known, however, that over a period of several years preceding the beginning of the war in Europe in 1939 Portuguese wages had been quite stable.

With the coming of war conditions farm wages of certain types tended to rise but the increases up to the early part of 1942 were apparently not more than 10 or 15 percent. It is probable, although detailed evidence is lacking, that wages in other industries also rose slightly at the same time.

In general it would appear that wages in Portugal ranged, roughly, from 8 escudos per day in the case of unskilled labor to about 20 escudos per day for skilled labor.

The escudo had a par value (gold) of 7.48 cents in U. S. currency but during most of the 1930's and as late as 1941 had an exchange value of approximately 4 cents in U. S. currency. At former par value, therefore, the unskilled worker's wage of 8 escudos per day would be equivalent to about 60 cents U. S. currency and the skilled worker's wage per day equivalent to about \$1.50 in U. S. currency, while at the exchange rates these wages would amount to about 32 cents and 80 cents per day, respectively.

It is, of course, impossible to measure the real purchasing value of foreign currencies in terms of exchange values, one reason being the differences in the cost of living. No satisfactory data exist regarding international comparisons of living costs, but studies by the International Labor Office, using food costs as the basis of comparison, indicate that the cost of living in Portugal in the 1930's was about 30 percent less than in the United States. Such a comparison is extremely crude but it is sufficient to show that the standards of living of Portuguese workers are extremely low. This is also the opinion of various observers.

The present article gives such detailed data as are available regarding wages in particular industries and occupations.

### *Daily Wage Rates in Important Industries and Occupations*

Minimum and maximum daily wage rates in the more important industries in Portugal, in 1933, are shown in the following (unpublished) table furnished to the U. S. Bureau of Labor Statistics by Carl F. Deichman, American Consul General in Lisbon in December 1933. Although the figures relate to the year 1933, it is believed, as noted above, that no important changes took place at least up to the present war period.

TABLE 1.—*Minimum and Maximum Daily Wage Rates in Important Industries of Portugal, 1933*

Industry	Rate per day		Industry	Rate per day	
	Men	Women		Men	Women
	<i>Escudos</i>	<i>Escudos</i>		<i>Escudos</i>	<i>Escudos</i>
Mining and coal.....	8.00-15.00	4.00- 7.00	Lumber and furniture...	12.29-19.33	7.50
Quarrying.....	9.00-21.50	4.00- 8.00	Paper.....	8.00-16.60	2.50- 8.00
Metal.....	10.00-18.33	3.50- 7.00	Graphic and printing....	10.16-20.00	5.00- 8.00
Ceramic.....	8.00-17.00	3.00- 7.00	Instruments of art and precision.....	11.66-26.50	21.00
Glass.....	14.00-20.00	5.50- 8.50	Tobacco.....	18.00-25.00	15.00-16.00
Chemical.....	7.00-23.00	5.00-10.00	Electrical.....	10.00-20.00	
Textile.....	8.00-20.00	3.50-10.00	Carriage and automobile body.....	12.00-20.00	
Shoe.....	10.90-16.60	4.00-11.33	Agriculture.....	6.50- 8.00	3.60- 4.00
Leather.....	8.00-17.66	4.00- 8.00			
Masonry.....	10.00-19.33				

Table 2 gives similar figures for certain important occupations in the Oporto district of Portugal. The information is from the same source as that in table 1, but relates to the year 1931. Dyers in cotton mills generally received a commission from the local aniline suppliers. Coal miners were given free coal, firewood, housing, and schooling for their children, while metal-mine workers were given free housing. Workers in the metallurgical industry were paid double rates for overtime.

TABLE 2.—Daily Wages in Specified Occupations and Industries in the Oporto District of Portugal, 1931

Industry or occupation	Daily wages of—		Industry or occupation	Daily wages of—	
	Males	Females		Males	Females
<i>Manufacturing</i>			<i>Mining—Continued</i>		
Wine industry:	<i>Escudos</i>	<i>Escudos</i>	Metal mines:	<i>Escudos</i>	<i>Escudos</i>
Bottlers.....	12.00-15.00	12.00	Miners.....	8.00-10.00	
Laborers.....	10.00-12.00		Waste removers.....	7.00- 8.00	
Labelers.....		12.00	Helpers..... <sup>3</sup>	3.00- 4.00	4.00
Coopers.....	<sup>1</sup> 20.00		<i>Metallurgy</i>		
Other workers.....	15.00		Turners.....	20.00	
Cotton mills:			Fitters.....	30.00	
Weavers.....	13.00-18.00	8.00-10.00	Plumbers.....	16.00-20.00	
Spinners.....	13.00-18.00	6.50-10.00	Electricians.....	19.00-30.00	
Bleachers.....	12.00-18.00		Mechanics.....	33.00	
Helpers.....	8.00-10.00		Laborers.....	12.00	
Technicians.....	40.00-50.00		Helpers.....	14.00	
Tacklers.....	16.00-21.00		<i>Agriculture</i>		
Dyers.....	20.00-30.00		Farm laborers.....	7.00- 9.00	3.00- 5.00
Woolen mills:			Sowing.....	7.00- 9.50	4.30- 5.60
Weavers.....	13.00-20.00	( <sup>2</sup> )	Planting vines.....	7.20- 9.20	5.00- 7.00
Spinners.....	13.00-20.00	( <sup>2</sup> )	Planting potatoes.....	7.40- 8.90	4.10- 4.40
Designers.....	30.00-40.00	( <sup>2</sup> )	Pruning olive trees.....	9.30	
Helpers.....	6.00-12.00	( <sup>2</sup> )	Grafting trees.....	10.00-12.00	
Technicians.....	40.00-60.00	( <sup>2</sup> )	Vintage.....	8.00	5.00
Dyers.....	20.00-30.00	( <sup>2</sup> )	Vine dressing.....	7.60- 9.50	
Laborers.....	10.00-12.00	( <sup>2</sup> )	Market gardening.....	8.10- 8.90	4.50- 5.60
Hat industry.....	19.00-25.00	5.00- 8.00	Weeding.....		4.00- 5.00
Sardine packing.....	10.00-15.00	4.00- 5.00	Gardening.....	10.00-18.00	
Biscuit and other food industries.....	10.00-15.00	5.00- 7.00	General work.....	7.50- 9.50	3.90- 5.40
Enamelware:			<i>Lumbering</i>		
Foundry work.....	11.00-12.00		Sawyers.....	15.00-17.00	
Enameling.....	11.00-12.00		Laborers.....	10.00-12.00	
Coloring, designing, etc.....	15.00-17.00		Helpers.....	6.00- 8.00	
<i>Mining</i>					
Coal miners.....	12.00-15.00	8.00-10.00			

<sup>1</sup> Maximum earnings; paid by piece work.<sup>2</sup> Women receive somewhat less than the wages paid to men.<sup>3</sup> Boys.

The wage figures in tables 1 and 2 above check quite closely with a brief tabulation of average daily wages published by the British Department of Overseas Trade in its 1934 report on "Economic conditions in Portugal." These figures, relating to the year 1932, are as follows:

	Wages per day (escudos)
Coal mining.....	10
Metallurgy.....	14
Ceramic.....	16
Chemical.....	20
Textile.....	13
Construction.....	16
Agriculture.....	8

#### MINIMUM-WAGE RATES IN COTTON INDUSTRY

An investigation made about 1936 showed that in the cotton spinning and weaving industry there were about 240 factories, employing a minimum of 40,000 workers. Minimum wages, fixed by an order of September 14, 1936, for certain occupations in this industry are shown in the accompanying statement.



Minimum  
wage<sup>1</sup>  
(escudos)

Finishers, male	per week	100.00
Finishers' assistants, male	do	75.00
Dyers, bleachers, mercerizers, oxidizers, and starchers, male	per day	13.00
Carders, finishing section, male	do	12.00
Openers, beaters, and carders of yarn, male	do	11.00
Assistant starchers, male	do	11.00
Machine operators, male and female:		
Warpers	do	10.00
Platers, amblers, twistors, power looms, etc	do	9.00
Miscellaneous workers:		
Men	do	9.00
Women	do	7.00
Minors:		
15 to 18 years	do	5.00
Under 15 years	do	3.50

<sup>1</sup> Data are from Portugal, Boletim do Instituto Nacional do Trabalho e Previdência (Lisbon), September 15, 1936 (pp. 403, 404).

## FARM WAGES

Wages for male farm labor in 1938 and in 1942 are shown in table 3. The table is not complete but indicates a slightly upward wage trend in 1942.

TABLE 3.—Daily Wages of Male Farm Labor in Portugal, 1938–1942, by Kind of Work

Kind of work	1938 <sup>1</sup>	Jan. 1942 <sup>2</sup>	May 1942 <sup>3</sup>
	Escudos	Escudos	Escudos
Cultivation of cereals and legumes:			
Tillage	7.60	7.50–12.00	9.00–15.00
Seeding	7.59	6.50–13.00	6.50–18.00
Harrowing and piling	7.40		6.50–17.00
Irrigation	7.40		
Harvest	9.20		7.50–18.50
Threshing	8.50		
Flailing	10.00		
Weeding			
Cultivation of roots and bulbs:			
Digging or tillage	7.60		
Seeding or planting	7.60	6.00–13.00	6.50–25.00
Harrowing and piling	7.50		
Sulphatization	7.80		
Pulling	7.80		
Viniculture:			
Digging	7.70		8.00–19.00
Propping vines	7.60		
Pruning	7.30	5.00–12.50	
Grafting	7.60		
Treatments	8.10		6.00–18.00
Grape gathering	7.50		
Olives and fruit trees:			
Planting	7.60	6.00–12.00	
Cleaning and pruning	8.10	5.00–12.50	
Beating off olives	7.20	6.00–11.00	
Fruit gathering			
Pine, oak, etc., forests:			
Rough-hewing and cutting	7.80		
Cleaning trees	8.00		
Cleaning land	8.20		
Miscellaneous:			
Garden work *	7.50	6.00–10.00	6.50–18.00
General work	7.40	7.00–11.00	7.00–14.50

<sup>1</sup> Portugal. Anuario Estatístico, ano de 1938. Lisbon, Instituto Nacional de Estatística, 1940 (pp. 230, 231).

<sup>2</sup> Boletim Mensal (Lisbon), February 1942 (p. 84).

<sup>3</sup> Idem, June 1942 (p. 261).

An important element in the agricultural labor situation in Portugal is the hiring of oxen, cows, asses, and mules. Table 4 indicates the average daily rate of hire of such domestic animals by kind of animals, work performed, and whether with or without food, in 1938.

TABLE 4.—Average Rate of Hire of Domestic Animals per Day in Portugal, 1938<sup>1</sup>

Designation of animals and labor	Average rates in various localities			
	With food		Without food	
	Lowest	Highest	Lowest	Highest
Oxen, yoke of:	<i>Escudos</i>	<i>Escudos</i>	<i>Escudos</i>	<i>Escudos</i>
Tillage.....	19.00	33.00	26.00	43.00
Seeding.....	19.00	36.00	25.00	42.00
Threshing.....	18.00	31.00	23.00	41.00
Hauling.....	22.00	34.00	25.00	45.00
Cows, yoke of:				
Tillage.....	18.00	30.00	22.00	39.00
Seeding.....	17.00	30.00	20.00	39.00
Threshing.....	17.00	30.00	20.00	39.00
Hauling.....	22.00	31.00	20.00	41.00
Asses, pair of:				
Tillage.....	13.00	20.00	18.00	27.00
Seeding.....	12.00	18.00	18.00	25.00
Threshing.....	12.00	19.00	18.00	26.00
Hauling.....	13.00	22.00	18.00	28.00
Mules, pair of:				
Tillage.....	20.00	30.00	26.00	37.00
Seeding.....	20.00	30.00	26.00	37.00
Threshing.....	20.00	29.00	26.00	36.00
Hauling.....	20.00	34.00	25.00	39.00

<sup>1</sup> Portugal. Anuario Estatístico, ano de 1938. Lisbon, Instituto Nacional de Estatística, 1940 (p. 232).

#### SUNDAY OVERTIME PAY AND ANNUAL LEAVE

The Portuguese Labor Code approved the principle of double pay on Sunday or other rest day (except for those in continuous industries), and also the principle of annual leave with pay. No information is available as to the extent to which these principles were actually put into effect.

#### Hours of Labor

##### REGULATIONS REGARDING WORKING HOURS

The general regulations relating to hours of work were embodied in a decree-law of August 24, 1934 and the amendatory decree-law of August 24, 1936. These general regulations applied to commercial and industrial enterprises but not to agriculture nor certain special branches of employment, such as domestic service. The regulations were to the effect that hours in general should not exceed 8, but exceptions were indicated. Commercial and industrial undertakings were defined as consisting of offices, shops, warehouses, workshops, factories, workplaces, urban services of common carriers, and other places where activities of a commercial or industrial character are carried on.

The hours of office employees were limited to 7 per day. Employees in the hotel industry and allied services, except cafes, were to be regulated by the Undersecretary of State for Corporations and Provident Institutions. Hours might be increased "by an express decision of the Government in view of exceptional circumstances."

The general regulations stated that, as a rule, work in industrial establishments should not begin before 7 a. m. nor end later than 8 p. m., and that work in offices should, as a rule, not extend beyond 9 a. m. to 6 p. m.

Minors under 12 years of age were excluded from employment in commercial or industrial establishments. Night work (between 8 p. m. and 7 a. m. in industrial establishments and between 6 p. m. and 9 a. m. in offices) could not be undertaken by women or minors under 18 years.

Violations were subject to fines varying with the number of persons normally employed. The administration of the legislation was in general under the National Labor and Provident Institution, which was given extensive discretion, as, for example, in exempting commercial enterprises in small towns and industrial establishments of a conspicuously rural character.

*Special industries.*—The hours of transport workers, by road or rail, were regulated by a decree of May 10, 1933. This provided that the normal hours of work should be organized within the limits of 8 hours per day (or night) and 48 hours per week, but under certain circumstances of continuous operation and succession of shifts, they might exceed 48 but not 56 hours per week on the average. It was also provided that employees must be granted 52 rest days in each year. Detailed regulations were made for special groups such as train crews.

A special provision was made for regulating the hours of work in bakeries by a decree-law of August 12, 1935. Special arrangements for bakeries were regarded as necessary because of the great importance of bread in the diet of workers and because of the need for special hours outside of normal working hours for the buying of bread. It was provided that bakeries and bread depots should open for serving customers at 7 a. m. every weekday except Monday, except in cases where the National Labor and Provident Institution might take into account local usage and custom in permitting different hours. Bakeries and bread depots were to be open on Sunday at 5 a. m. and would close at 11 a. m., and on Mondays the hours for serving customers were to run from 11 a. m. to 8 p. m., employees to be given an interval of 1 hour. These regulations, however, were not to interfere with the general 8-hour limitations on the hours of the individual worker.

*Overtime.*—Section 14 of the 1934 decree stated: "Overtime in addition to the normal hours of work may be authorized in duly substantiated cases where social and economic conditions allow this." Provision was made under section 15 that the rate of overtime and night-work compensation should be time and a half, and in another law passed on the same date administrative procedure was provided for applying this legislation.

#### ACTUAL WORKING HOURS

The effectiveness of the above-mentioned regulations cannot be ascertained. It appears, however, that the prevailing work schedules in industry had been limited to 8 hours per day for a considerable time before the enactment of the laws of 1934 and 1936. Relatively few changes seem to have been introduced, the laws being in substance confirmations of hours already fixed by custom, law, or agreement.



SWEDISH MASTER WAGE AGREEMENT, 1943<sup>1</sup>

IN January 1942, a master wage agreement was concluded between the Swedish employers' association and the central organization of labor unions. This agreement provided for a sliding scale of wage increases during 1942, the basis for the increases to be the official quarterly cost-of-living index. Under the terms of that agreement industrial workers and employees were receiving at the end of 1942 additional pay equal to 20.7 percent of the basic wage scale effective in 1938 (at which time the cost-of-living index stood at 166). This rate had been in effect since August 1, 1942, the July 1, 1942, quarterly index having been 237.

After lengthy negotiations a new master wage agreement was concluded on December 19, 1942, providing for continued application of the sliding scale of wage increases during 1943. One condition in the new agreement is that no further increases will be paid unless the cost-of-living index reaches at least 249 (1914=100). If this occurs, an extra wage equal to 5 percent of the basic wage rate in 1938 will be payable (in addition to the present extra pay of 20.7 percent). Because the cost-of-living index as of January 1, 1943, was 239, there will be no increase in wages during the first quarter of 1943. The future wage scale therefore will be dependent upon the success of the Government's policy, aiming at stabilization of prices at their present levels. The new master wage agreement provides for cancelation by either side in case the cost-of-living index should rise to 257 or more.

It is estimated that at present the level of extra wages corresponds to only 57 percent of the rise in living costs. However, should the cost-of-living index reach 249, the increment payable to the workers under it would be equal to 75 percent of the increase in living cost.

<sup>1</sup> Data are from report of Thermod O. Klath, United States commercial attaché, Stockholm.



# Wage and Hour Regulation

## STATE MINIMUM SALARIES FOR TEACHERS

INTEREST in State minimum-salary laws for teachers has been stimulated by the numbers of teachers who are leaving the schools, now that the war is opening opportunities to earn higher salaries elsewhere. Even before the war, school salaries were relatively low, and now with the higher incomes in other lines of work as a result of the war and the higher cost of living, the need for better school salaries is being stressed.

In 1942 laws were in effect in half of the States and one of the two Territories<sup>1</sup> providing some type of minimum-salary standards for teachers; in addition, the District of Columbia and the Territory of Hawaii compensate teachers according to statutory schedules. An analysis of the types of such laws and of proposals for revision of existing minimum-salary laws is given in the Journal of the National Education Association,<sup>2</sup> in which the following data appear.

### *Types of Minimum-Salary Standards*

A single flat-rate salary, either by month or by year, is provided in seven minimum-salary laws now in effect. This type of law is found in California (\$1,320 a year), Iowa (\$65 a month), Kentucky (\$75 a month), North Dakota (\$45 a month), Oregon (\$85 a month), Rhode Island (\$650 a year), and Washington (\$1,200 a year).

Twelve laws establish several different classes of minimum salaries. The Territory and States having these more complex laws are Alaska, Colorado, Indiana, Maryland, Massachusetts, Mississippi, New Jersey, New York, Pennsylvania, Vermont, West Virginia, and Wisconsin. Salary classes in these States may vary with region or size of district; with the certificate or level of training of the teacher; with the type of school (elementary or secondary); or with years of experience of the teacher. In three of these States (Indiana, Maryland, and West Virginia) the text of the law sets forth the entire minimum schedule of salaries, based on preparation and years of experience. The minimum-salary schedules of New York and Pennsylvania, which are based on size of school district, type of school, and years of experience, are also incorporated in the laws.

In Alabama, Delaware, Georgia, North Carolina, Oklahoma, and Tennessee, the legislative provisions are more flexible. The laws of these six States do not specify the salary amounts, but give authority to the State board of education to fix minimum salaries in administering State aid. The Mississippi law also has such a provision, in

<sup>1</sup> Alabama, Alaska, California, Colorado, Delaware, Georgia, Indiana, Iowa, Kentucky, Maryland, Massachusetts, Mississippi, New Jersey, New York, North Carolina, North Dakota, Oklahoma, Oregon, Pennsylvania, Rhode Island, Tennessee, Vermont, Washington, West Virginia, and Wisconsin.

<sup>2</sup> Journal of the National Education Association of the United States (Washington), February 1943: State Laws on Teachers' Salaries in 1943, by Hazel Davis.

addition to a schedule of minimum salaries, based on training, incorporated in the school law.

### *Proposals for New Minimum-Salary Laws*

Improvement of teachers' salaries was prominent in the proposals for school legislation submitted to the State legislatures which met in 42 capitals in January 1943.

In several States where the flat-rate minimum is in effect, higher minimums were proposed, as follows: Oregon, an increase from \$85 a month to \$1,320 a year; North Dakota, from \$45 to \$75 a month; Wisconsin, from \$85 a month in certain districts to a State-wide \$1,200 a year for college graduates and \$1,000 for nongraduates. Higher minimums and better support for them were urged in Washington.

In some of the States providing for different classes of minimum salaries for teachers, higher minimums were proposed, as follows: Indiana, higher minimum salaries and better support for the State minimums; New Jersey and New York, a higher minimum salary for teachers in rural sections; Pennsylvania, a bonus of \$300 for each teacher, in addition to higher minimum schedules for smaller school districts; West Virginia, a State-wide increase of \$25 a month for every certificated teacher.

A 15-percent increase in the salaries of all public-school personnel and State payment of salaries for 9 months instead of 8, was asked by the State superintendent of schools of North Carolina. A new basic salary schedule and a cost-of-living bonus for District of Columbia teachers was proposed for Congressional action, and a cost-of-living bonus for all government employees, including teachers, was being studied by a hold-over committee of the Hawaii Legislature.

New minimum-wage salary laws were also proposed in several States. In Illinois, for example, a minimum salary of \$100 per school month, and in Minnesota minimums of \$1,500 a year for college graduates and \$1,200 for nongraduates were recommended. A basic annual salary of \$720 was proposed in Maine. In Utah a bill sponsored by the State school boards association proposes a minimum-salary schedule of the preparation type with required increments for at least 16 years of satisfactory experience. The beginning salaries, based on the teacher's training, would range from \$840 to \$1,056 a year.

These proposals represent efforts "to improve present salary standards, to adopt new ones, and to strengthen State school finances so as to put the State standards into effective operation."

### *Desirable Features of Minimum-Wage Laws*

Few States have such progressive local school administration that State minimum-salary standards are not needed, it is stated. They are most necessary in the rural areas, and the following are suggested in the article under review as necessary features of a State minimum-salary standard, in order that it may be most effective in such areas. The standard—

- (1) Should be State-wide in scope, with no exceptions below the minimum.
- (2) Should provide in the law for a method of enforcement.
- (3) Should encourage local districts to exceed the State minimum.
- (4) Should recognize training and experience as bases for variation in minimum salaries.
- (5) Should be supplemented by State school support to guarantee the standards in districts where local funds are inadequate.



## Labor Turn-over

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### LABOR TURN-OVER IN MANUFACTURING, JANUARY 1943

THE rate of total separations in manufacturing industries, 7.11 per 100 employees, was higher in January 1943 than in the previous month, and much above January of 1942. The increase during the month broke the downward movement of the last 3 months of 1942. Separations showed a rising trend through most of 1942, reaching a peak above 8 percent in September.

To a large extent this trend represents a shift of workers from plants engaged in manufacture for civilian needs to plants in war production. Among durable-goods industries the separation rate was highest in furniture and finished lumber (10.60) and in lumber and timber products (10.12), in both of which production has been limited. One of the effects of the low weekly earnings in these industries is reflected in the high quit rates, 6.71 in furniture and finished lumber, and 5.06 in lumber and timber products.

In manufacturing as a whole during the year the quit rate which is now the dominant component in total separations has had a parallel movement to that of separations, reaching a peak of about 5 percent in September and averaging 4.45 percent in January 1943.

Among war plants competition within the industry for experienced labor has resulted in relatively high quit rates. For instance, of the 17 selected war industries, 6 had higher rates than the average for all manufacturing industries. These were shipbuilding and repairing, 6.98; rolling and drawing of copper and copper alloys, 5.23; tanks, 5.11; radios, radio equipment, and phonographs, 5.11; nonferrous-metal foundries (except aluminum), 5.04; and aluminum and magnesium products, 4.54.

The various turn-over rates, for all industries combined, are shown in table 1, for each month from January 1942 through January 1943.

TABLE 1.—Monthly Labor Turn-over Rates (per 100 Employees) in Manufacturing Industries<sup>1</sup>

Class of turn-over and year	January	February	March	April	May	June	July	August	September	October	November	December
Total separations:												
1942	5.10	4.82	5.36	6.12	6.54	6.46	6.73	70.6	8.10	7.91	7.09	6.37
1943 <sup>2</sup>	7.11											
Quits:												
1942	2.36	2.41	3.02	3.59	3.77	3.85	4.02	4.31	5.19	4.65	4.21	3.71
1943 <sup>2</sup>	4.45											
Discharges:												
1942	.30	.29	.33	.35	.38	.38	.43	.42	.44	.45	.43	.46
1943 <sup>2</sup>	.52											
Lay-offs: <sup>3</sup>												
1942	1.61	1.39	1.19	1.31	1.43	1.21	1.05	.87	.68	.78	.65	.70
1943 <sup>2</sup>	.74											
Military and miscellaneous:												
1942	.83	.73	.82	.87	.96	1.02	1.23	1.46	1.79	2.03	1.80	1.50
1943 <sup>2</sup>	1.40											
Total accessions:												
1942	6.87	6.02	6.99	7.12	7.29	8.25	8.28	7.90	9.15	8.60	8.14	6.92
1943 <sup>2</sup>	8.28											

<sup>1</sup> Turn-over rates are not comparable to the employment and pay-roll reports issued monthly by the Bureau of Labor Statistics, as the former are based on data for the entire month, while the latter refer only to pay periods ending nearest the middle of the month. In addition, certain seasonal industries, such as canning and preserving, are not covered by the labor turn-over survey and the sample is not as extensive as that of the employment survey which includes a larger number of small plants.

<sup>2</sup> January 1943 not strictly comparable with previously released data. Plants have been reclassified in accordance with the product manufactured at present, rather than their pre-war product as formerly. The rates now refer to all employees rather than wage earners only.

<sup>3</sup> Including temporary, indeterminate, and permanent lay-offs.

Rates for the major industry groups manufacturing durable and nondurable goods, for January 1943, are shown in table 2.

TABLE 2.—Monthly Labor Turn-over Rates (per 100 Employees) by Major Industry Group, January 1943

Industry group	Separation rates					Total accession rates
	Total separations	Quits	Discharges	Lay-offs	Military and miscellaneous separations	
Durable goods:						
Automobiles	4.24	2.12	0.32	0.40	1.40	6.01
Electrical machinery	5.02	3.03	.35	.24	1.40	6.37
Furniture and finished lumber	10.60	6.71	.87	1.69	1.33	10.92
Iron and steel and their products	6.36	3.90	.36	.57	1.53	6.69
Lumber and timber products	10.12	5.06	.39	3.51	1.16	6.14
Machinery except electrical	5.61	3.19	.55	.33	1.54	6.52
Nonferrous metals and their products	7.64	4.84	.71	.35	1.74	9.65
Ordnance	6.70	3.79	.52	.75	1.64	9.16
Stone, clay, and glass products	7.46	4.01	.30	1.74	1.41	6.67
Transportation equipment (except automobiles)	8.03	4.97	.90	.32	1.84	12.01
Nondurable goods:						
Apparel and other finished products	6.42	4.83	.25	.86	.48	7.46
Chemicals and allied products	5.10	3.04	.38	.39	1.29	6.66
Food and kindred products	10.82	7.16	.68	1.42	1.56	10.82
Leather and leather products	6.94	4.55	.34	.95	1.10	6.61
Miscellaneous industries	4.92	2.09	.34	.40	1.99	6.75
Paper and allied products	7.99	5.18	.45	.92	1.44	9.19
Petroleum and coal products	3.49	1.80	.19	.30	1.20	5.91
Printing, publishing, and allied products	5.37	3.11	.28	.97	1.01	5.10
Rubber products	6.79	4.72	.31	.34	1.42	7.46
Textile-mill products	6.84	5.14	.41	.38	.91	7.31
Tobacco manufactures	7.18	5.72	.29	.57	.60	7.09

Turn-over rates for individual industries for the month of January 1943 are shown in table 3.

TABLE 3.—Monthly Labor Turn-over Rates (per 100 Employees) in Selected Manufacturing Industries, January 1943

Industry	Separation rates								
	Total separations			Quits			Discharges		
	January 1943	December 1942	January 1942	January 1943	December 1942	January 1942	January 1943	December 1942	January 1942
Agricultural implements.....	3.82	3.38	3.48	1.94	1.76	1.85	0.38	0.35	0.24
Blast furnaces, steel works, and rolling mills.....	4.79	(1)	(1)	2.83	(1)	(1)	.17	(1)	(1)
Cement.....	6.56	6.94	5.50	3.36	3.24	1.20	.24	.26	.12
Cigars and cigarettes.....	7.35	8.29	6.09	5.87	5.25	3.63	.26	.26	.14
Cotton manufacturing.....	7.57	6.96	5.39	5.77	4.96	3.37	.47	.37	.33
Structural and ornamental metalwork.....	9.46	7.04	4.80	5.62	3.65	2.08	.63	.62	.29
Dyeing and finishing textiles.....	7.37	6.97	5.13	4.85	4.02	2.98	.61	.72	.36
Glass <sup>2</sup> .....	6.55	8.72	4.57	3.07	3.89	1.83	.41	.53	.23
Boots and shoes <sup>3</sup> .....	7.04	5.92	3.98	4.63	4.14	2.35	.34	.29	.22
Furniture.....	10.97	9.33	7.41	6.84	6.11	3.00	.94	.84	.40
Hardware <sup>2</sup> .....	7.24	6.72	7.76	5.29	4.49	4.17	.49	.40	.38
Machinery, general industrial.....	6.08	(1)	(1)	3.53	(1)	(1)	.72	(1)	(1)
Flour.....	9.84	9.48	5.28	7.44	7.32	2.45	.75	.47	.07
Tools (not including edge tools, machine tools, files and saws) <sup>2</sup> .....	6.20	5.94	5.01	4.37	3.61	3.25	.41	.47	.52
Hosiery, full-fashioned.....	4.93	(1)	(1)	4.01	(1)	(1)	.14	(1)	(1)
Hosiery, seamless.....	6.43	(1)	(1)	5.02	(1)	(1)	.40	(1)	(1)
Knit outerwear (except knit gloves and mittens).....	3.83	(1)	(1)	2.82	(1)	(1)	.39	(1)	(1)
Knit underwear.....	6.54	(1)	(1)	5.45	(1)	(1)	.31	(1)	(1)
Leather.....	6.23	5.25	3.06	3.80	3.42	1.20	.34	.25	.14
Slaughtering and meat packing.....	12.22	15.29	9.37	7.65	8.98	2.44	.84	.87	.35
Stamped and enamel ware.....	10.00	8.37	9.00	7.04	4.93	4.51	.68	.78	.44
Automobiles and bodies <sup>2</sup> .....	3.64	4.51	6.52	1.70	2.54	2.64	.21	.29	.17
Automobile parts and equipment <sup>2</sup> .....	7.24	6.43	7.85	4.21	3.34	2.11	.86	.65	.34
Paints and varnishes.....	6.36	5.91	4.01	4.04	3.48	2.23	.75	.37	.25
Boxes, paper.....	9.94	8.22	6.99	6.05	4.78	3.10	.50	.59	.27
Petroleum refining.....	3.36	3.98	2.00	1.63	2.26	.75	.17	.14	.05
Planing mills <sup>2</sup> .....	10.20	10.00	6.82	5.20	5.95	3.02	.33	.72	.47
Printing, book and job.....	6.31	6.71	5.97	3.51	3.10	2.28	.34	.29	.19
Printing, newspapers and periodicals.....	4.37	3.14	3.86	2.66	1.20	.71	.22	.08	.10
Paper and pulp.....	7.18	8.38	3.44	4.60	5.78	1.80	.33	.36	.16
Rayon and allied products.....	4.47	5.21	2.70	2.66	2.08	.83	.16	.22	.19
Silk and rayon goods.....	7.41	6.61	5.35	5.62	4.74	2.98	.47	.34	.45
Rubber boots and shoes <sup>2</sup> .....	7.78	9.25	8.78	5.45	7.14	3.08	.28	.34	.13
Steam and hot-water heating apparatus.....	7.70	5.63	5.47	4.28	2.96	2.83	.40	.24	.37
Brick, tile, and terra cotta.....	11.57	8.65	9.09	5.89	4.50	2.53	.28	.40	.80
Rubber tires.....	4.71	5.56	10.05	2.92	3.68	1.24	.24	.24	.05
Textile machinery <sup>2</sup> .....	3.97	5.27	4.65	2.49	3.25	3.11	.06	.18	.19
Woolen and worsted goods.....	5.26	5.40	6.17	3.76	3.42	2.86	.19	.15	.24

See footnotes at end of table.



TABLE 3.—Monthly Labor Turn-over Rates (per 100 Employees) in Selected Manufacturing Industries, January 1943—Continued

Industry	Separation rates—Continued						Total accession rates		
	Lay-offs			Military and miscellaneous separations					
	Jan-uary 1943	De-cem-ber 1942	Jan-uary 1942	Jan-uary 1943	De-cem-ber 1942	Jan-uary 1942	Jan-uary 1943	De-cem-ber 1942	Jan-uary 1942
Agricultural implements.....	0.04	0.12	0.46	1.46	1.15	0.93	3.51	5.36	3.81
Blast furnaces, steel works, and rolling mills.....	.24	( <sup>1</sup> )	( <sup>1</sup> )	1.55	( <sup>1</sup> )	( <sup>1</sup> )	5.11	( <sup>1</sup> )	( <sup>1</sup> )
Cement.....	1.84	1.88	3.51	1.12	1.56	.67	3.02	3.29	2.92
Cigars and cigarettes.....	.61	2.19	1.96	.61	.59	.36	7.30	4.89	7.19
Cotton manufacturing.....	.36	.47	1.06	.97	1.16	.63	7.81	6.42	6.49
Structural and ornamental metalwork.....	1.40	.90	1.57	1.81	1.87	.86	7.63	7.05	7.45
Dyeing and finishing textiles.....	.42	.66	.92	1.49	1.57	.87	8.59	7.22	5.40
Glass <sup>2</sup> .....	1.37	2.57	1.59	1.70	1.73	.92	8.38	8.87	3.46
Boots and shoes <sup>2</sup> .....	1.01	.51	.78	1.06	.98	.63	6.73	5.55	6.65
Furniture.....	1.84	1.11	3.07	1.35	1.27	.94	11.16	10.49	4.83
Hardware <sup>2</sup> .....	.43	.51	2.43	1.03	1.32	.78	8.42	8.36	8.03
Machinery, general industrial.....	.23	( <sup>1</sup> )	( <sup>1</sup> )	1.60	( <sup>1</sup> )	( <sup>1</sup> )	7.74	( <sup>1</sup> )	( <sup>1</sup> )
Flour.....	.42	.34	1.89	1.23	1.35	.87	14.59	9.66	5.45
Tools (not including edge tools, machine tools, files and saws) <sup>2</sup> .....	.14	.41	.38	1.28	1.45	.86	6.59	6.49	5.98
Hosiery, full-fashioned.....	.20	( <sup>1</sup> )	( <sup>1</sup> )	.58	( <sup>1</sup> )	( <sup>1</sup> )	3.96	( <sup>1</sup> )	( <sup>1</sup> )
Hosiery, seamless.....	.40	( <sup>1</sup> )	( <sup>1</sup> )	.61	( <sup>1</sup> )	( <sup>1</sup> )	7.02	( <sup>1</sup> )	( <sup>1</sup> )
Knit outerwear (except knit gloves and mit-tens).....	.34	( <sup>1</sup> )	( <sup>1</sup> )	.28	( <sup>1</sup> )	( <sup>1</sup> )	8.97	( <sup>1</sup> )	( <sup>1</sup> )
Knit underwear.....	.27	( <sup>1</sup> )	( <sup>1</sup> )	.51	( <sup>1</sup> )	( <sup>1</sup> )	7.38	( <sup>1</sup> )	( <sup>1</sup> )
Leather.....	.72	.37	1.04	1.37	1.21	.68	5.58	5.53	2.77
Slaughtering and meat packing.....	1.93	2.53	5.35	1.80	2.91	1.23	11.87	17.69	13.38
Stamped and enamel ware.....	1.06	.51	3.08	1.22	2.15	.97	12.71	10.07	10.54
Automobiles and bodies <sup>2</sup> .....	.35	.40	3.22	1.38	1.28	.49	5.71	7.81	6.01
Automobile parts and equipment <sup>2</sup> .....	.66	1.00	4.45	1.51	1.44	.95	7.50	7.98	10.17
Paints and varnishes.....	.18	.68	.55	1.39	1.38	.98	4.79	5.11	3.70
Boxes, paper.....	2.02	1.51	3.04	1.37	1.34	.58	11.44	8.05	5.58
Petroleum refining.....	.33	.17	.38	1.23	1.41	.82	6.03	3.76	2.86
Planing mills <sup>2</sup> .....	3.57	1.61	2.38	1.10	1.72	.95	6.16	7.15	5.75
Printing, book and job.....	1.42	2.42	2.87	1.04	.90	.63	6.40	7.09	5.81
Printing, newspapers and periodicals.....	.51	.94	2.51	.98	.92	.54	3.65	2.82	2.65
Paper and pulp.....	.70	.52	.60	1.55	1.72	.88	7.21	7.80	4.04
Rayon and allied products.....	.08	1.25	.80	1.57	1.66	.88	5.01	4.14	1.85
Silk and rayon goods.....	.60	.69	1.27	.72	.84	.65	7.58	4.75	5.80
Rubber boots and shoes <sup>2</sup> .....	.68	.23	4.46	1.37	1.54	1.11	9.11	11.54	5.64
Steam and hot-water heating apparatus.....	.84	.48	1.11	2.18	1.95	1.16	8.40	5.99	5.03
Brick, tile, and terra cotta.....	4.43	2.56	5.06	.97	1.19	.70	6.58	5.12	4.14
Rubber tires.....	.13	.23	7.14	1.42	1.41	1.62	6.14	7.18	4.48
Textile machinery <sup>2</sup> .....	.47	.11	.21	.95	1.73	1.14	5.91	4.59	5.23
Woolen and worsted goods.....	.46	.92	2.24	.85	.91	.83	5.78	4.28	3.55

<sup>1</sup> Comparable data not immediately available.<sup>2</sup> January 1943 data not strictly comparable with preceding months.

Table 4 gives quit rates for strategic war industries for which the publication of complete turn-over data has been restricted.

TABLE 4.—Quit Rates for Selected War Industries, January 1943

Industry	January 1943	Industry	January 1943
Aircraft.....	3.86	Metalworking machinery.....	3.23
Aircraft parts and engines.....	2.45	Nonferrous-metal foundries (except aluminum).....	5.04
Aluminum and magnesium products.....	4.54	Radios, radio equipment, and phonographs.....	5.11
Ammunition, except small arms.....	4.12	Rolling and drawing of copper and copper alloys.....	5.23
Communication equipment.....	1.79	Shipbuilding and repairing.....	6.98
Electrical machinery (except radios and communication equipment).....	2.98	Small-arms ammunition.....	3.53
Engines and turbines.....	2.88	Tanks.....	5.11
Explosives.....	3.65		
Firearms.....	3.34		
Guns, howitzers, mortars, and related equipment.....	2.34		

# Building Operations

## BUILDING CONSTRUCTION IN URBAN AREAS OF THE UNITED STATES, FEBRUARY 1943

THE dollar volume of building construction started in urban areas of the United States during February was 73 percent less than the total for February 1942. The decline in the value of contracts awarded for Federally financed building projects in February matched the drop in the value of permits issued to private builders. Valuations for all new nonresidential buildings dropped 82 percent, as compared with decreases of 66 percent for new residential construction and 44 percent for additions and repairs.

February was the twelfth consecutive month of declining valuations. The 26-percent drop between January and February 1943 was due to a 38-percent reduction in the value of Federal contract awards. Permit valuations for other building construction rose about 7 percent, principally because of increased repairs and alterations. Valuations for all new nonresidential buildings dropped 40 percent from January to February, while those for new residential construction decreased 21 percent.

### *Changes in Coverage and Method*

The Bureau of Labor Statistics has revised its methods of summarizing reports on building permits. Heretofore, the figures covered a specified number of reporting cities, which varied from month to month. Beginning with the February comparisons, the data will cover all building construction in the urban area of the United States, which is defined to include all cities and towns with populations of 2,500 or more in 1940. The principal advantage of the change is that figures for every month will be comparable, since estimates will be made for any cities in the urban area which fail to report in a particular month. Such estimates will be based on reports received from other cities of approximately the same size. As in the past, the value of contracts awarded by the Federal Government for building construction will be combined with information obtained from the building-permit reports. The contract value of Federally financed construction in the urban area was \$56,549,000 in February 1943, as contrasted with \$91,077,000 in the previous month and \$209,074,000 in February 1942.

The valuation figures represent estimates of construction costs made by prospective private builders when applying for permits to build and the value of contracts awarded by Federal or State governments. No land cost are included. Unless otherwise indicated, only building construction within the corporate limits of cities in the urban area is included in the tabulations.

### Comparison of February 1943 With January 1943 and February 1942

The volume of Federally financed and other building construction in the urban area of the United States in January and February 1943 and February 1942 is summarized in table 1.

TABLE 1.—Summary of Building Construction in All Urban Areas, February 1942 and January and February 1943

Class of construction	Number of buildings			Valuation		
	February 1943	Percent of change from—		February 1943 (in thousands of dollars)	Percent of change from—	
		January 1943	February 1942		January 1943	February 1942
All building construction.....	36,998	-0.8	-31.6	91,578	-26.1	-72.6
New residential.....	14,051	-15.2	-43.5	44,540	-20.9	-65.6
New nonresidential.....	3,146	+8.3	-54.2	33,358	-40.4	-81.5
Additions, alterations, and repairs..	19,801	+11.1	-11.5	13,680	+16.7	-43.7

The number of new dwelling units in the urban area for which permits were issued or contracts were awarded in February 1943 and the estimated valuation of such new housekeeping residential construction are presented in table 2.

TABLE 2.—Number and Valuation of New Dwelling Units in All Urban Areas, by Type of Dwelling, February 1943

Source of funds and type of dwelling	Number of dwelling units			Valuation		
	February 1943	Percent of change from—		February 1943 (in thousands of dollars)	Percent of change from—	
		January 1943	February 1942		January 1943	February 1942
All dwellings.....	17,679	-28.4	-51.3	43,984	-21.3	-65.6
Private.....	6,115	+4.2	-71.7	17,470	+0.9	-76.0
1-family.....	4,676	+31.1	-70.2	13,956	+24.2	-75.5
2-family.....	588	-34.5	-59.8	1,559	-36.5	-57.1
Multifamily.....	851	-39.4	-80.9	1,955	-46.0	-83.8
Federal.....	11,564	-38.6	-21.2	26,514	-31.2	-51.9

### Construction From Public Funds, February 1943

The value of contracts awarded and force-account work started during January and February 1943 and February 1942 on all construction projects financed wholly or partially from Federal funds is shown in table 3. This table includes other types of construction as well as building construction, both inside and outside cities included in the urban area.



TABLE 3.—Value of Contracts Awarded and Force-Account Work Started on Federally Financed Construction Projects, February 1942 and January and February 1943

[In thousands of dollars]

Source of funds	Contracts awarded and force-account work started		
	February 1943 <sup>1</sup>	January 1943 <sup>2</sup>	February 1942 <sup>2</sup>
Total.....	224,832	338,484	745,874
War Public Works.....	1,653	2,259	6,406
Regular Federal appropriations.....	161,793	260,767	711,894
Federal Public Housing Authority.....	61,386	75,458	27,574

<sup>1</sup> Preliminary; subject to revision.<sup>2</sup> Revised.

## BUILDERS OF 1-FAMILY HOUSES IN 11 AREAS, 1940 AND 1941<sup>1</sup>

### Summary

ABOUT three-fourths of all builders of privately financed single-family houses in 11 defense areas built only one house per year during 1940 and 1941. These small builders constructed only 28 percent of such houses in 1940 and 20 percent in 1941. Five or 6 percent of the builders, who constructed 10 or more houses during a year, built 44 percent of the total in 1940 and 56 percent in 1941.

The number of single-family units built in the 11 areas increased 41 percent between 1940 and 1941, and the average builder constructed 3.6 single-family houses in 1941, as compared with 2.7 in 1940. This increase in the average size of builders' operations was due chiefly to expansion among builders of 10 or more houses, whose average rose from 24 houses in 1940 to 32 in 1941. Such large builders were especially prominent in suburban developments.

The 11 areas differed markedly in the proportions of large and of small builders. Baltimore was the most active area in 1941; 17 percent of the builders in that area constructed 10 or more houses, the largest erecting 624. In other areas the proportion of large operators varied between 2 and 10 percent.

Turn-over among residential builders was high in 1940 and 1941. Builders who constructed privately financed 1-family houses in the same area in both years were in the minority. Turn-over was particularly great among builders of only one house per year.

Privately financed 1-family houses (including detached, semi-detached, and row houses) made up the major part of all new residential construction in 1940 and 1941. However, since individual builders in the 11 areas probably engaged in other types of private and public construction, this analysis of 1-family houses cannot be regarded as a complete account of their building activities in either year.

<sup>1</sup> Prepared in the Bureau's Division of Construction and Public Employment by Alexander C. Findlay.

### Purpose and Scope of Study

The present report follows the general pattern of two earlier reports by the Bureau of Labor Statistics<sup>2</sup> on the operations of builders of 1-family houses in 1938. The data here given were obtained from the recently completed Defense Housing Survey.<sup>3</sup> The analysis was made primarily to determine whether the increased building activity in 1940 and 1941 had affected the scale of operations of builders of privately financed 1-family houses. Since the typical defense housing area included a central industrial city and surrounding suburban areas, this study also provided an opportunity to compare the size of operations of builders inside and outside the central cities. Earlier studies had been confined to operations within the corporate limits of the selected cities. Furthermore, data for two successive years permitted a comparison of the turn-over among builders and of the change in the scale of operations of identical builders.

The 11 areas were chosen from those included in the Defense Housing Survey, and one criterion was the completeness of the information on builders' names. Even in the 11 areas it was impossible to obtain the builder's name for all houses, and the tabulations cover only those houses for which information was complete.<sup>4</sup>

Although the 11 areas cannot be regarded as typical of the entire country or even of all defense areas, they do represent a variety of communities in different parts of the country which were experiencing a period of unusually active building because of the expansion of war industries. The areas and their populations are listed below.

	Population in 1940 of—	
	Entire area	Central city only
Baltimore, Md.	1, 002, 979	859, 100
Birmingham, Ala.	407, 851	267, 583
Bridgeport, Conn.	233, 060	147, 121
Buffalo, N. Y.	857, 257	575, 901
Fort Wayne, Ind.	134, 385	118, 410
Freeport, L. I., N. Y.	462, 813	20, 410
Houston, Tex.	511, 850	384, 514
Pittsburgh, Pa.	1, 449, 689	671, 659
Savannah, Ga.	117, 970	95, 996
Tampa, Fla.	142, 004	108, 391
Tulsa, Okla.	190, 663	142, 157
Total	5, 510, 521	3, 391, 242

### Comparison of Activities in 1940 and 1941

Migration of workers to war industries created a large market for new housing in numerous areas in 1940 and 1941. To encourage private builders to build homes suitable for war workers, in the spring of 1941 terms were liberalized for FHA-insured loans on dwellings to be built in certain areas with critical housing shortages. These incentives to private builders came at a time when the residential building industry was experiencing the greatest activity since 1928.

<sup>2</sup> See Monthly Labor Review, September 1940 (p. 732), and May 1941 (p. 1283).

<sup>3</sup> For information on the purpose and scope of this survey, see Monthly Labor Review, December 1942 (p. 1204): Housing Provided in 138 Defense Areas.

<sup>4</sup> Investigation of permit records in several municipalities disclosed that the builder's name was omitted only when the owner was having a house built for himself without a general contractor. In places where permits were not required it was only in the case of small operations, usually the construction of a single house at a time, that the builder's name could not be obtained.

Although the uncertain materials situation discouraged some builders toward the end of 1941, private builders started more single-family houses in nonfarm areas in 1941 than in any other year on record except 1924 and 1925, and 19 percent more than in 1940.

In the 11 defense housing areas the number of new privately financed single-family houses increased 41 percent between 1940 and 1941, but the number of builders in these areas increased only 5 percent. Thus, the average number of houses per builder rose from 2.7 in 1940 to 3.6 in 1941. Although the average size of operations rose appreciably, there was only a comparatively small decline in the proportion of builders constructing only one house per year, and even in 1941 such builders outnumbered all others almost 3 to 1. However, these small-scale builders accounted for a much smaller fraction of the 1-family units built in 1941 than in the previous year, their share dropping from over 28 to only 20 percent of the total shown in table 1. The proportion built by operators who constructed from 2 to 9 houses per year also decreased during 1941.

TABLE 1.—Size of Operations of Builders of Privately Financed 1-Family Houses Inside and Outside Central Cities in 11 Defense Areas, 1940 and 1941

Year and location of operations	All builders	Builders of specified number of houses				All houses	Builders of specified number of houses			
		1	2-4	5-9	10 or more		1	2-4	5-9	10 or more
	Number of builders					Number of houses built				
1940.....	10, 153	7, 618	1, 487	554	494	27, 029	7, 618	3, 859	3, 658	11, 894
Inside central city only.....	4, 363	3, 404	648	169	142	9, 268	3, 404	1, 618	1, 101	3, 145
Outside central city only.....	5, 455	4, 214	720	267	254	14, 366	4, 214	1, 875	1, 825	6, 452
Inside and outside central city <sup>1</sup> .....	335	-----	119	118	98	3, 395	-----	366	732	2, 297
1941.....	10, 688	7, 737	1, 610	680	661	38, 196	7, 737	4, 426	4, 581	21, 452
Inside central city only.....	3, 787	2, 801	580	231	175	11, 425	2, 801	1, 549	1, 538	5, 537
Outside central city only.....	6, 564	4, 936	906	357	365	21, 460	4, 936	2, 519	2, 407	11, 598
Inside and outside central city <sup>1</sup> .....	337	-----	124	92	121	5, 311	-----	358	636	4, 317
	Percent of builders					Percent of houses built				
1940.....	100.0	75.0	14.6	5.5	4.9	100.0	28.2	14.2	13.6	44.0
Inside central city only.....	100.0	78.0	14.9	3.9	3.2	100.0	36.7	17.4	11.9	34.0
Outside central city only.....	100.0	77.3	13.1	4.9	4.7	100.0	29.4	13.0	12.7	44.9
Inside and outside central city <sup>1</sup> .....	100.0	-----	35.5	35.2	29.3	-----	-----	10.8	21.6	67.6
1941.....	100.0	72.4	15.1	6.3	6.2	100.0	20.2	11.6	12.0	56.2
Inside central city only.....	100.0	74.0	15.3	6.1	4.6	100.0	24.5	13.6	13.5	48.4
Outside central city only.....	100.0	75.2	13.8	5.4	5.6	100.0	23.0	11.7	11.2	54.1
Inside and outside central city <sup>1</sup> .....	100.0	-----	36.8	27.3	35.9	100.0	-----	6.7	12.0	81.3

<sup>1</sup> Builders who constructed houses both inside and outside central city.

The increase in the average number of houses per builder in 1941 was due chiefly to an increase both in the number of builders who constructed 10 or more houses and in the scale of their operations. They constructed 56 percent of the single-family units in the 11 areas in 1941 as against 44 percent in 1940. These large builders, on the average, erected 24 houses in 1940 and 32 in 1941. The largest builder in 1941 constructed 624 privately financed single-family houses.

In both years many more houses were built in the suburban areas surrounding the central cities than within the corporate limits of these



cities. Moreover, builders of 10 or more houses constructed a greater fraction of the total in the suburbs than in the central cities. Lower land costs and the availability of large tracts of desirable sites are two major reasons for the greater prominence of the large builders in outlying areas. Nevertheless, even in the suburbs the 1-house builders were about 3 times as numerous as all others combined. Although the inclusion of outlying areas increased the proportion of houses constructed by large builders, it did not materially alter the findings of the 1938 studies, namely, that the great majority of the builders are small-scale operators who construct a comparatively minor fraction of the 1-family houses.

### Differences Among Areas

In each of the 11 areas shown in table 2 the number of houses built increased between 1940 and 1941, gains varying from less than 10 percent in Freeport and Tampa to approximately 75 percent in Baltimore, Birmingham, Buffalo, and Tulsa.<sup>5</sup> In 9 areas the number of builders also increased, although increases in Savannah and Tampa were small. In Freeport and Houston, however, there were fewer builders in 1941 than in the previous year, the reductions occurring among builders of less than 5 houses per year.

TABLE 2.—Size of Operations of Builders of Privately Financed 1-Family Houses in Each of 11 Defense Areas, 1940 and 1941

Year and size of builders' operations	Defense area											
	All areas	Balti- more	Bir- ming- ham	Bridge- port	Buf- falo	Fort Wayne	Free- port	Hous- ton	Pitts- burgh	Sa- van- nah	Tam- pa	Tul- sa
Number of builders												
1940: Total.....	10,153	752	540	460	958	166	2,258	1,971	2,128	238	267	415
1 house.....	7,618	406	385	333	823	90	1,837	1,395	1,702	192	184	271
2 to 4 houses.....	1,487	151	105	73	94	45	230	398	243	25	36	87
5 to 9 houses.....	554	78	28	38	20	20	83	93	122	13	22	37
10 or more houses.....	494	117	22	16	21	11	108	85	61	8	25	20
1941: Total.....	10,688	903	674	552	1,217	183	1,674	1,655	2,796	243	275	516
1 house.....	7,737	513	483	387	942	70	1,223	1,096	2,334	195	181	313
2 to 4 houses.....	1,610	149	114	105	179	77	220	332	259	26	38	111
5 to 9 houses.....	680	83	45	35	48	27	104	109	137	9	29	54
10 or more houses.....	661	158	32	25	48	9	127	118	66	13	27	38
Number of houses <sup>1</sup>												
1940: Total.....	27,029	5,296	1,115	1,069	1,752	562	6,034	4,661	4,017	454	931	1,138
1 house.....	7,618	406	385	333	823	90	1,837	1,395	1,702	192	184	271
2 to 4 houses.....	3,859	387	272	206	232	135	617	1,006	622	67	99	216
5 to 9 houses.....	3,658	520	187	244	130	119	552	624	804	92	147	239
10 or more houses.....	11,894	3,983	271	286	567	218	3,028	1,636	889	103	501	412
1941: Total.....	38,196	9,272	1,969	1,480	3,111	729	6,326	6,274	5,399	641	1,004	1,991
1 house.....	7,737	513	483	387	942	70	1,223	1,096	2,334	195	181	313
2 to 4 houses.....	4,426	393	297	268	467	218	582	973	777	71	97	283
5 to 9 houses.....	4,581	585	305	245	313	182	684	713	939	62	186	367
10 or more houses.....	21,452	7,781	884	580	1,389	259	3,837	3,492	1,349	313	540	1,028

<sup>1</sup> The number of houses in each area which were excluded because the builders' names were unknown were as follows in 1940 and 1941, respectively: Baltimore, 107 and 51; Bridgeport, 197 and 110; Buffalo, 130 and 223; Fort Wayne, 77 and 99; Freeport, 447 and 375; Houston, 27 and 30; Pittsburgh, 288 and 304; Tampa, 0 and 2; and Tulsa, 0 and 24. Information was complete for other areas.

<sup>2</sup> These percentages are based on the number of units for which the name of the builder was known. See footnote to table 2.

Baltimore was the most active of the 11 areas and also had a much larger proportion of builders who had constructed 10 or more houses—17 percent as compared with from 2 to 10 percent in other areas. They constructed 84 percent of all privately financed 1-family houses in Baltimore in 1941 and 75 percent of the total in the previous year. Although this was far in excess of the proportion built by large builders in other defense areas, it apparently was not unusual for Baltimore, since over 76 percent of the 1-family houses built within the corporate limits of Baltimore in 1938 were constructed by large-scale builders.<sup>6</sup>

At least 70 percent of the builders in the Pittsburgh, Savannah, Buffalo, Birmingham, and Bridgeport areas built only one house in either 1940 or 1941. Consequently, the average number of houses per builder was much lower in these areas than in the others. Freeport also had a high proportion of small builders, but the average for this area was high because of the large number of houses constructed by builders of 10 or more houses.

The scale on which the largest builders operated was greatly expanded between 1940 and 1941 in 8 of the defense areas shown in table 3. In Houston, for example, permits were issued to a single builder for 544 houses in 1941 as contrasted with 59 the year before. The abnormal demand for dwelling units in areas with large war industries facilitated financing since it meant quick sale, with equity funds tied up for a relatively short time. More important, in many areas there was an increase in junior-mortgage financing (i. e., mortgages subordinate to first mortgages) which was so directly associated with building booms of the past. Capital requirements were thus minimized even for many developments where backers preferred not to, or could not, qualify for FHA-insured loans under Title VI of the National Housing Act. Consequently, the scale of operations of an individual builder was in many cases likely to be governed by his willingness to assume the relatively minor risks involved in undertaking an ambitious program, and by the expectation of mortgagors and other creditors that their claims would be paid. Under such circumstances, construction of scores or hundreds of privately financed houses by a single builder does not in itself indicate basic changes in

TABLE 3.—*Privately Financed 1-Family Houses Built by Largest Builder in Each of 10 Defense Areas, 1940 and 1941*

Defense area	1940			1941		
	Total houses built	By largest builder		Total houses built	By largest builder	
		Number of houses	Percent of total		Number of houses	Percent of total
Baltimore.....	5,296	363	6.85	9,272	624	6.73
Birmingham.....	1,115	24	2.15	1,969	134	6.81
Bridgeport.....	1,069	54	5.05	1,480	123	8.31
Buffalo.....	1,752	88	5.02	3,111	110	3.54
Freeport.....	6,034	140	2.32	6,326	248	3.92
Houston.....	4,661	59	1.26	6,274	544	8.67
Pittsburgh.....	4,017	105	2.61	5,399	71	1.32
Savannah.....	454	17	3.74	641	125	19.50
Tampa.....	931	56	6.02	1,004	49	4.88
Tulsa.....	1,138	46	4.04	1,991	110	5.52

<sup>6</sup> Of 72 cities surveyed in 1938, only Philadelphia and the Borough of the Bronx, New York City, had a higher proportion of units built by builders of 10 or more houses than Baltimore.

the functional organization of the housing industry whereby a single builder conducts all major production operations with his own employees.

### Turn-over Among Builders

The high turn-over among residential builders is illustrated by table 4, in which the size of operations of identical builders in 1940 and 1941 in the Baltimore, Birmingham, and Savannah areas is compared. The greatest shifting was among builders of one house per year. Even in the Baltimore area, where the number of such builders was comparatively small, it was found that 458 of the 513 builders of one house each in 1941 had built no single-family houses in the Baltimore area in 1940. Moreover, 352 of the 406 who built one house in 1940 dropped out in 1941. On the other hand, a number of the builders of 10 or more houses in 1941 had not built any privately financed single-family houses in the Baltimore area the year before. Some builders who operated in the area in both years expanded their activities in 1941, but they were outnumbered by those who built fewer houses or abandoned this type of undertaking entirely in 1941. Similar shifts occurred among builders in the Birmingham and Savannah areas.

TABLE 4.—Comparison of Size of Operations of Builders of Privately Financed 1-Family Houses in 3 Defense Areas, 1940 and 1941

Defense area and size of builders' operations in 1940	All builders	Number of builders erecting specified number of houses in 1941								
		No houses	1 house	2-4 houses	5-9 houses	10-24 houses	25-49 houses	50-99 houses	100-199 houses	200 or more houses
<b>Baltimore</b>		473	513	149	83	85	43	17	7	6
No houses	624		458	82	32	31	11	5	5	0
1 house	406	352	32	13	2	4	2	0	0	1
2-4 houses	151	82	12	33	21	3	0	0	0	0
5-9 houses	78	22	5	15	15	16	4	1	0	0
10-24 houses	73	10	3	3	11	23	20	3	0	0
25-49 houses	25	5	2	2	2	6	4	4	0	0
50-99 houses	13	1	1	1	0	2	0	4	2	2
100-199 houses	4	1	0	0	0	0	2	0	0	1
200 or more houses	2	0	0	0	0	0	0	0	0	2
<b>Birmingham</b>		444	483	114	45	21	7	3	1	0
No houses	578		464	82	19	6	5	1	1	0
1 house	385	356	13	11	2	3	0	0	0	0
2-4 houses	105	70	5	12	15	3	0	0	0	0
5-9 houses	28	7	1	7	7	5	0	1	0	0
10-24 houses	22	11	0	2	2	4	2	1	0	0
<b>Savannah</b>		202	195	26	9	12	0	0	1	0
No houses	207		189	14	3	1	0	0	0	0
1 house	192	183	4	5	0	0	0	0	0	0
2-4 houses	25	16	2	4	1	2	0	0	0	0
5-9 houses	13	3	0	3	4	3	0	0	0	0
10-24 houses	8	0	0	0	1	6	0	0	1	0

The explanation of the high degree of fluidity among residential builders involves a number of factors. First of all, it should be stressed that the survey covered only builders of privately financed single-family houses in each year. The fact that a builder of 1-family houses in 1940 did not construct such houses the following



year did not necessarily mean that he was no longer active in the area. Some of these builders undoubtedly constructed 2-family houses, flats, or apartments, as well as remodeling old houses or constructing nonresidential buildings. A few of the larger builders may also have had contracts for Federal war housing projects in these areas.

Some allowance must be made for change of business name as the result of incorporations, the formation or dissolution of partnerships, and so forth.<sup>7</sup> It is not uncommon for a builder to operate under two or more business names simultaneously, assuming a particular name for a single housing development or for operations within a certain neighborhood. There may therefore be more continuity in builders' operations than the figures in table 4 would indicate.

Numerous carpenter-builders shift back and forth from builder to employee status as economic conditions change. The ease of financing and selling promotional houses in boom times encourages some to build a few houses for sale. On the other hand, others prefer steady employment, with extensive overtime, to the worries and responsibilities of independent operation. It is fairly common for these carpenter-builders to build a house and occupy it until sold, meanwhile working at their trade until they are ready to start the next house.

It has been common practice in many localities for persons in other businesses to construct a few houses for sale as a side line. Their operations are intermittent, and are governed by the amount of time and working capital available for the side line, as well as by the prospects for a quick profit.

Only in the rarest cases is there a planned program for the acquisition of land. Operators in either of the groups just mentioned are in numerous cases guided in their decision to build by an opportunity to buy one or more lots.

Turn-over among builders is undoubtedly increased by the mechanics' lien laws of some States which give an absolute lien on the property to the workers and those providing materials until their claims are fully paid. Such a lien takes priority over any mortgage and is second only to taxes. With creditors so protected, builders with limited managerial ability and resources are extended credit more readily than they would be if the creditors' risks were greater.

<sup>7</sup> Accurate adjustment for this factor would require detailed local investigation, which the present study did not permit. An investigation of this point made in another area and for a different purpose, however, showed that such changes were relatively infrequent and could be regarded as of minor importance.

# Retail Prices

## FOOD PRICES IN FEBRUARY 1943

RETAIL costs of food showed a slight acceleration in the rate of increase between January 12 and February 16 over that recorded for the preceding month. The index rose 0.5 percent from mid-January to mid-February, reaching 133.6 percent of the 1935-39 average this was 9.9 percent above May 1942, 14 percent above February of that year, and approximately 43 percent over August 1939.

There were price increases for most of the foods priced, with fresh fruits and vegetables showing the largest increase as a group (3.8 percent). This rise accompanied the increased demand for fresh fruits and vegetables owing to short supplies of canned goods. The usual large seasonal decline in egg prices (13.5 percent) was primarily responsible for holding down the general increase, as the average cost for all foods other than eggs rose 1.5 percent during the month. The drop in egg prices also caused the average for foods under direct control by the Office of Price Administration to decrease by 0.1 percent; without egg prices there would have been an increase of 1.1 percent. In February the food group as a whole was 7.4 percent above the level of May 1942. Foods not under direct control (about 10 percent of the food budget) advanced 4.4 percent and were 33 percent above May 1942.

Reports from retail food stores indicated limited supplies of meats, butter, most canned fruits and vegetables, shortening, tea, and coffee. The Bureau's food-cost index does not completely reflect all the higher costs which are due to necessary shifts in consumption because of short supplies; at the present time it is not possible to measure them statistically.

TABLE 1.—Changes in Retail Costs of Food in 51 Large Cities Combined, by Commodity Groups

Commodity group	Percent of change, February 16, 1943, compared with—				Commodity group	Percent of change, February 16, 1943, compared with—			
	1943		1942			1943		1942	
	Jan. 12	May 12	Feb. 17	Aug. 15		Jan. 12	May 12	Feb. 17	Aug. 15
	Jan. 12	May 12	Feb. 17	Aug. 15		Jan. 12	May 12	Feb. 17	Aug. 15
All foods.....	+0.5	+9.9	+14.3	+42.9	Dairy products.....	+1.3	+10.2	+11.6	+46.0
Cereals and bakery products.....	+1.0	+9.5	+14.9	+42.2	Eggs.....	-13.5	+24.9	+21.1	+58.9
Meats.....	+1.5	+3.9	+7.5	+29.4	Fruits and vegetables.....	+3.3	+15.7	+26.5	+61.1
Beef and veal.....	+1.5	+3.9	+7.5	+29.4	Fresh.....	+3.8	+17.5	+29.6	+64.7
Pork.....	+1.6	+2.5	+13.9	+43.5	Canned.....	+1.7	+7.0	+14.6	+43.3
Lamb.....	+1.4	+16.0	+25.5	+38.8	Dried.....	+1.8	+19.3	+24.8	+73.3
Chickens.....	+2.9	+26.5	+29.5	+51.6	Beverages.....	+1.3	+2.2	+6.5	+31.5
Fish, fresh and canned.....	+2.3	+27.9	+22.4	+93.8	Fats and oils.....	-1.1	+3.0	+10.6	+49.2
					Sugar.....	0	+2.2	-2.2	+33.3

Increases between January 12 and February 16 were reported for 43 foods, 9 showed decreases, while 13 remained unchanged. Of the 54 foods included in the index, 39 were above the January level, 7 were below, and 8 were unchanged; 42 of the 54 foods registered higher prices than on May 12 of last year. Only two food groups, eggs and fats and oils, were below January, and sugar was at the same level.

Percentage changes in retail costs of food on February 16 compared with costs for January 1943, February and May 1942, and August 1939, are presented in table 1.

### Details by Commodity Groups

Indexes of retail costs by commodity groups are shown in table 2 for January and February 1943, February, May, and December 1942, and August 1939. The accompanying charts show the trend in costs of all foods, January 1913 to February 1943, inclusive, and for each major commodity group for the period January 1929 to February 1943, inclusive.

TABLE 2.—Indexes of Retail Costs of Food in 51 Large Cities Combined,<sup>1</sup> by Commodity Groups, in Specified Months

[1935-39=100]

Commodity group	1943		1942			1939
	Feb. 16 <sup>2</sup>	Jan. 12	Dec. 15	May 12	Feb. 17	Aug. 15
All foods.....	133.6	133.0	132.7	121.6	116.8	93.5
Cereals and bakery products.....	106.5	<sup>3</sup> 105.9	105.8	105.2	104.3	93.4
Meats.....	136.1	134.7	133.2	124.3	118.5	95.7
Beef and veal.....	128.9	128.2	127.5	124.1	119.9	99.6
Pork.....	126.3	125.5	125.2	123.2	110.9	88.0
Lamb.....	137.1	136.6	135.7	118.2	109.2	98.8
Chickens.....	143.4	139.4	134.9	113.4	110.7	94.6
Fish, fresh and canned.....	193.0	188.7	183.3	150.9	157.7	99.6
Dairy products.....	135.9	134.2	132.3	123.3	121.8	93.1
Eggs.....	144.1	166.5	167.2	115.4	119.0	90.7
Fruits and vegetables.....	148.9	144.1	146.6	128.7	117.7	92.4
Fresh.....	152.8	<sup>3</sup> 147.2	151.0	130.0	117.9	92.8
Canned.....	131.3	<sup>3</sup> 129.1	127.7	122.7	114.6	91.6
Dried.....	156.5	<sup>3</sup> 153.8	150.5	131.2	125.4	90.3
Beverages.....	124.8	<sup>3</sup> 124.4	124.5	124.6	117.2	94.9
Fats and oils.....	126.1	126.2	125.3	122.4	114.0	84.5
Sugar.....	127.4	127.4	127.7	127.1	127.7	95.6

<sup>1</sup> Aggregate costs of 54 foods in each city, weighted to represent total purchases of families of wage earners and lower-salaried workers, have been combined with the use of population weights.

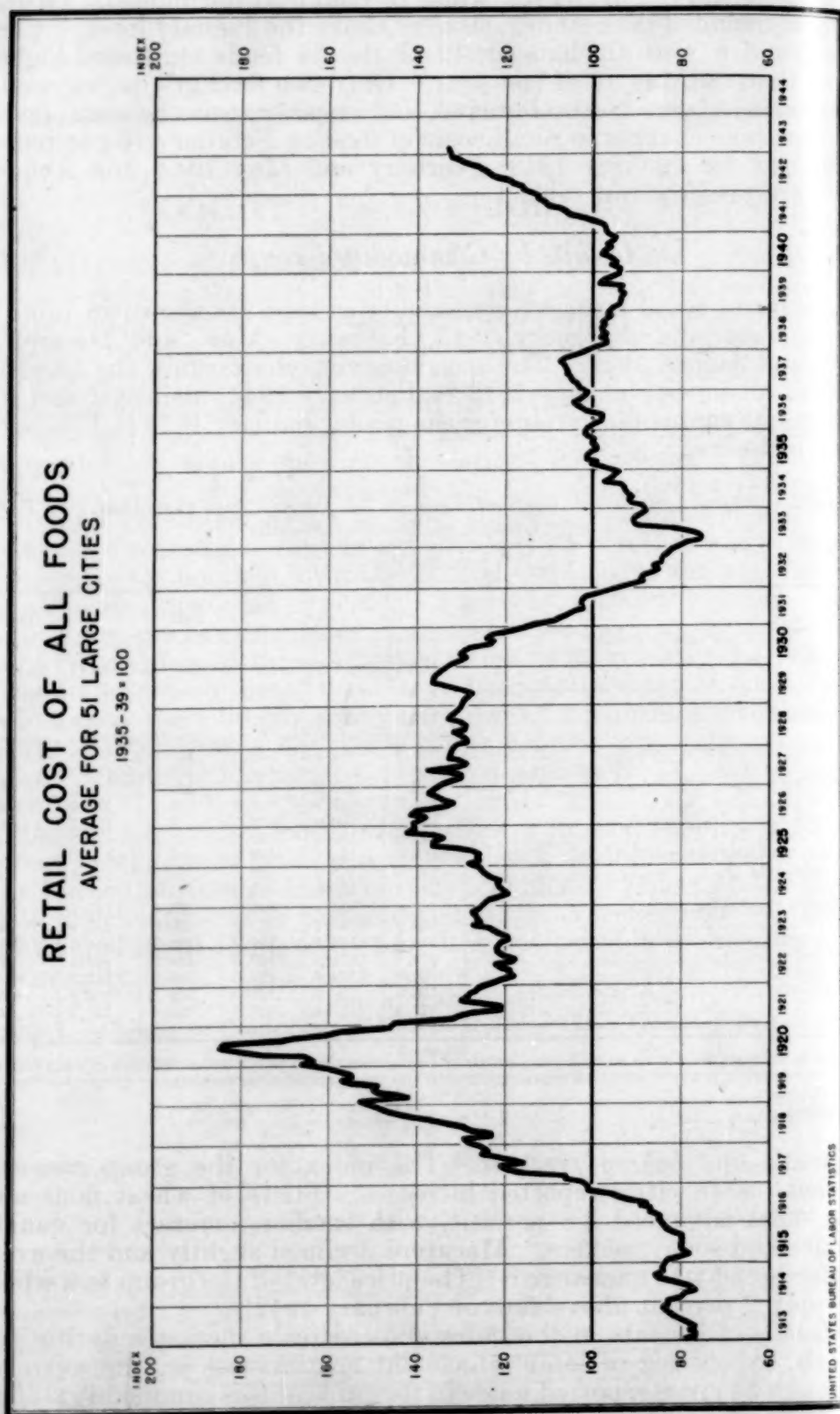
<sup>2</sup> Preliminary.

<sup>3</sup> Revised.

**Cereals and bakery products.**—The index for the group rose 0.6 percent, as 48 cities reported increases. Prices of wheat flour and corn meal advanced 3.8 percent, with smaller increases for vanilla cookies and soda crackers. Macaroni declined slightly and the average for bread was unchanged. The price level of the group as a whole was only 2 percent above that of February 1942.

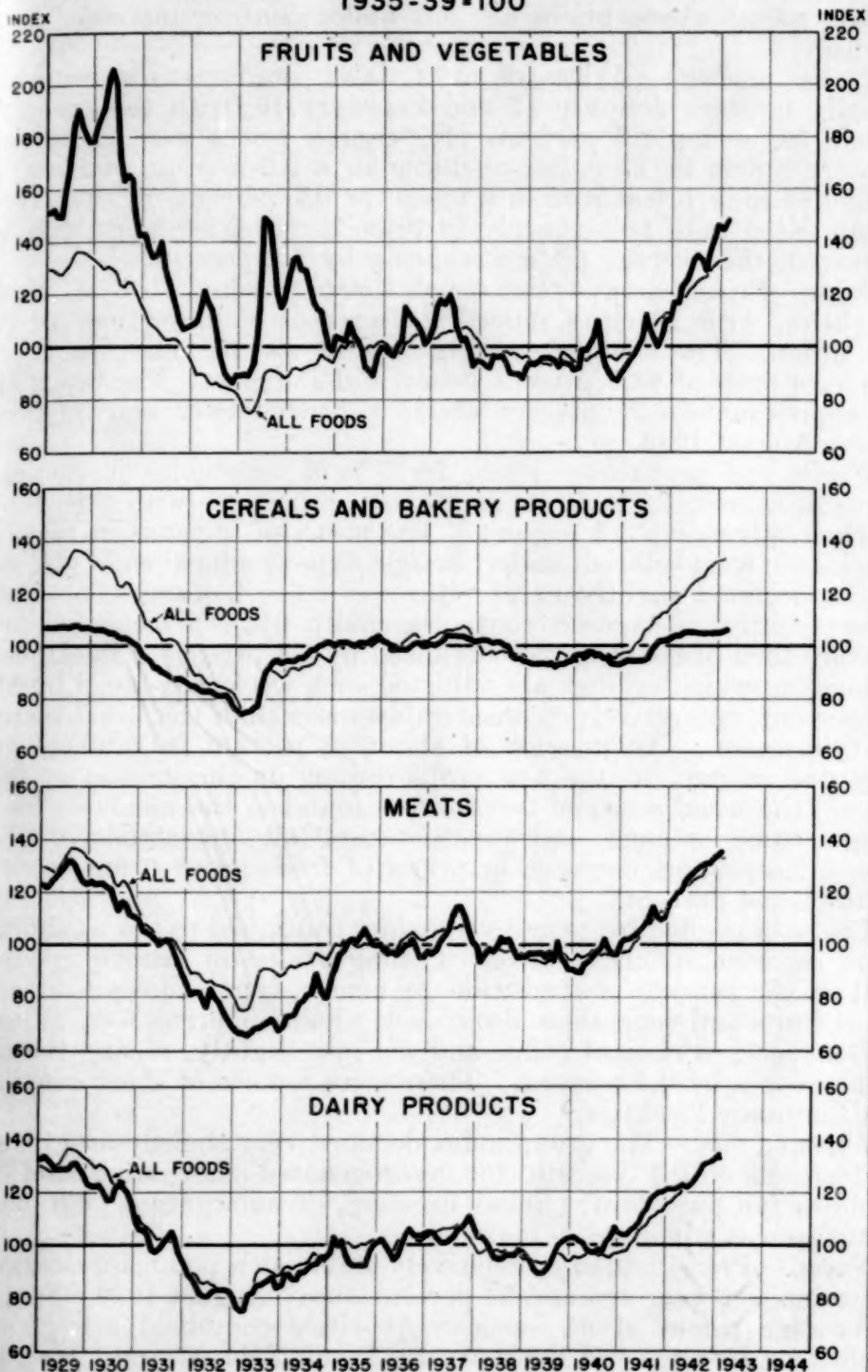
**Meats.**—All meats in the index showed price increases during the month, except leg of lamb which did not increase on the average, although 30 cities reported a rise in the price of this commodity. The meats group was approximately 15 percent above February 1942 and 42 percent above August 1939. Los Angeles reported a minor decrease for meats but the remaining 50 cities in the index shared in





## RETAIL COST OF FOOD

1935-39=100

UNITED STATES DEPARTMENT OF LABOR  
BUREAU OF LABOR STATISTICS

the rise. Prices of beef, veal, pork, and lamb, for which the most critical supply situation was reported, advanced by less than 1 percent, while prices of chickens, the supply of which was more abundant and whose ceilings are adjusted weekly at both wholesale and retail, rose 2.9 percent. Costs of fresh fish, the only article included in the meats group whose prices are not under control, increased by 4.2 percent.

*Dairy products.*—Prices of most dairy products rose contraseasonally between January 12 and February 16, with the group as a whole advancing 1.3 percent. Fresh-milk prices were advanced in grocery stores in 17 cities, resulting in a 2.2-percent increase; and delivered-milk prices rose in 6 cities, or 0.7 percent on the average. Evaporated milk rose sharply in price in 50 cities as ceilings were adjusted, the average price advancing by 5.2 percent.

*Eggs.*—Prices showed the usual sharp seasonal decline in most localities, with 10 cities reporting decreases of more than 10 cents per dozen. The average on February 16 was 51 cents for the best grade, a drop of 13.5 percent below mid-January. The index stood at approximately 21 percent above February 1942 and 59 percent above August 1939.

*Fruits and vegetables.*—Fresh fruits and vegetables increased 3.8 percent, canned 1.7 percent, and dried 1.8 percent, with the group as a whole advancing 3.3 percent. The prices of bananas at retail and wholesale were placed under margin-type ceilings and the retail prices declined slightly in 21 cities. Prices of oranges, also under direct control, decreased contraseasonally by 4 percent, while the uncontrolled prices of apples advanced by 5.4 percent. Potatoes and onions, on which ceilings are adjusted each week, advanced by 8 and 12 percent, respectively—considerably more than the usual increases at this season. An increase of about 18 percent in cabbage prices was due in part to the new crops coming on the market at higher prices; the usual seasonal trends were found in the increases for carrots, lettuce, spinach, and sweetpotatoes (all uncontrolled). There was a 3.6-percent decrease in prices of fresh green beans, contrary to the usual pattern.

Prices of canned fruits and vegetables continued to rise as shortages were reported in many areas. Ceiling prices on canned goods are still in the process of transition to margin-type ceilings. Prices of dried fruits and vegetables also rose as wholesale prices were adjusted.

*Beverages.*—Prices of coffee and tea rose slightly, raising the index of beverages by 0.3 percent. There were reports of short supplies of both in many localities.

*Fats and oils.*—The group index declined very slightly as a result of a decrease of 0.4 percent for hydrogenated shortening and local declines for pure lard. Salad dressing, oleomargarine, and peanut butter prices advanced in many cities.

*Sugar.*—Prices remained relatively stable at a point approximately the same as a year ago and 33 percent above August 1939.

Average prices of 65 foods in 51 cities combined are given in table 3 for January and February 1943, and February and May 1942.



TABLE 3.—Average Retail Prices of 65 Foods in 51 Large Cities Combined, January and February 1943, and February and May 1942

Article	1943		1942	
	Feb. 16 <sup>1</sup>	Jan. 12	May 12	Feb. 17
<b>Cereals and bakery products:</b>				
Cereals:	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
Flour, wheat.....10 pounds.....	58.0	55.9	51.6	51.8
Macaroni.....pound.....	14.1	<sup>2</sup> 14.2	14.2	14.1
Wheat cereal <sup>2</sup> .....28-oz. pkg.....	24.2	24.2	24.1	24.0
Corn flakes.....8 ounces.....	7.0	7.0	7.2	7.2
Corn meal.....pound.....	5.4	5.2	4.7	4.6
Rice <sup>2</sup> .....do.....	12.6	12.5	12.3	11.3
Rolled oats <sup>2</sup> .....do.....	8.9	8.9	8.6	8.3
Bakery products:				
Bread, white.....do.....	8.7	8.7	8.7	8.7
Bread, whole-wheat.....do.....	9.6	9.6	9.5	9.5
Bread, rye.....do.....	9.7	9.7	9.7	9.6
Vanilla cookies.....do.....	27.3	26.7	27.7	26.7
Soda crackers.....do.....	17.4	17.3	16.4	16.2
<b>Meats:</b>				
Beef:				
Round steak.....do.....	45.3	44.9	44.2	42.1
Rib roast.....do.....	35.6	35.2	34.0	33.1
Chuck roast.....do.....	30.9	30.6	28.9	28.4
Veal:				
Cutlets.....do.....	55.7	55.5	53.6	51.9
Pork:				
Chops.....do.....	43.6	43.3	43.2	36.8
Bacon, sliced.....do.....	42.7	42.2	39.3	37.3
Ham, sliced <sup>2</sup> .....do.....	60.2	59.6	58.8	55.8
Ham, whole.....do.....	38.7	38.5	37.8	35.5
Salt pork.....do.....	23.9	23.5	24.0	21.3
Lamb:				
Leg.....do.....	39.0	39.0	33.8	31.2
Rib chops.....do.....	47.7	47.5	41.3	38.0
Poultry:				
Roasting chickens.....do.....	46.0	44.4	36.1	35.2
Fish:				
Fresh, frozen.....do.....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
Salmon, pink.....16-oz. can.....	23.1	22.3	21.8	20.8
Salmon, red <sup>2</sup> .....do.....	41.3	40.7	40.0	38.4
<b>Dairy products:</b>				
Butter.....pound.....	55.6	55.1	45.7	42.5
Cheese.....do.....	37.3	37.3	34.0	35.1
Milk, fresh (delivered).....quart.....	15.4	15.3	14.9	15.1
Milk, fresh (store).....do.....	14.2	13.9	13.5	13.6
Milk, fresh (delivered and store) <sup>2</sup> .....do.....	15.0	14.8	14.4	14.5
Milk, evaporated.....14½-oz. can.....	10.1	9.6	8.7	8.8
Eggs.....dozen.....	51.1	50.0	40.9	42.2
<b>Fruits and vegetables:</b>				
Fresh:				
Apples.....pound.....	7.8	7.4	7.5	6.1
Bananas.....do.....	10.7	10.8	12.0	8.4
Oranges.....dozen.....	37.4	39.0	31.4	26.2
Grapefruit <sup>2</sup> .....each.....	5.9	6.0	6.3	4.8
Beans, green.....pound.....	18.9	19.6	13.4	18.7
Cabbage.....do.....	6.6	5.6	4.5	4.7
Carrots.....bunch.....	9.0	8.3	6.6	6.8
Lettuce.....head.....	14.0	13.4	9.2	8.5
Onions.....pound.....	6.2	5.5	6.8	7.0
Potatoes.....15 pounds.....	58.0	<sup>2</sup> 53.6	53.0	49.3
Spinach.....pound.....	12.4	<sup>2</sup> 12.0	7.4	7.5
Sweetpotatoes.....do.....	7.1	6.3	5.4	5.0
Canned:				
Peaches.....No. 2½ can.....	25.9	25.5	23.3	22.5
Pineapple.....do.....	28.8	28.9	27.1	25.2
Grapefruit juice <sup>2</sup> .....No. 2 can.....	13.7	13.4	9.8	9.9
Beans, green <sup>2</sup> .....do.....	14.6	14.3	14.0	13.1
Corn.....do.....	14.0	12.9	13.0	12.5
Peas.....do.....	15.1	15.0	15.8	15.1
Tomatoes.....do.....	12.6	12.3	12.1	11.1
Dried:				
Prunes.....pound.....	16.4	16.3	12.3	11.4
Navy beans.....do.....	9.7	9.5	9.0	9.0
<b>Beverages:</b>				
Coffee.....do.....	29.3	29.2	28.9	27.3
Tea.....¼ pound.....	21.1	20.9	22.4	20.7
Cocoa <sup>2</sup> .....½ pound.....	9.7	9.8	10.2	9.8

See footnotes at end of table.

TABLE 3.—Average Retail Prices of 65 Foods in 51 Large Cities Combined, January and February 1943, and February and May 1942—Continued

Article	1943		1942	
	Feb. 16 <sup>1</sup>	Jan. 12	May 12	Feb. 17
<b>Fats and oils:</b>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
Lard.....pound.....	19.1	19.1	17.9	16.2
Shortening, other than lard:				
In cartons.....do.....	20.8	20.3	19.8	18.8
In other containers.....do.....	24.4	24.5	25.8	24.7
Salad dressing.....pint.....	25.0	24.9	25.4	24.1
Oleomargarine.....pound.....	23.2	22.5	22.4	21.3
Peanut butter.....do.....	31.3	30.9	26.9	21.7
<b>Sugar and sweets:</b>				
Sugar.....do.....	6.9	6.9	6.9	6.9
Corn sirup <sup>2</sup> .....24 ounces.....	15.4	<sup>3</sup> 15.4	14.8	14.3
Molasses <sup>4</sup> .....18 ounces.....	15.4	15.2	14.5	13.9

<sup>1</sup> Preliminary.<sup>2</sup> Not included in index.<sup>3</sup> Revised.<sup>4</sup> Composite prices not computed.

### Details by Cities

The increase in food costs between January 12 and February 16 was shared by 39 cities, 10 showed decreases, and 2 remained unchanged. Increases of 1.7 percent or more were shown in Houston, Detroit, Chicago, and Memphis, where there were sharp local rises for fruits and vegetables and relatively small declines in egg prices. Los Angeles and Washington reported decreases of more than 1 percent, largely due to declines in prices of fresh fruits and vegetables. When compared with costs for February 1942, the increase over the year ranges from 9.7 percent in Indianapolis to 20.2 in Memphis.

Indexes of food costs by cities are shown in table 4 for January and February 1943, and February and May 1942.

TABLE 4.—Indexes of the Average Retail Cost of All Foods, by Cities,<sup>1</sup> January and February 1943, and February and May 1942

[1935-39=100]

City	1943		1942		City	1943		1942	
	Feb. 16 <sup>2</sup>	Jan. 12	May 12	Feb. 17		Feb. 16 <sup>2</sup>	Jan. 12	May 12	Feb. 17
United States.....	133.6	133.0	121.6	116.8	West North Central—Continued.				
New England:					St. Louis.....	134.4	133.1	123.8	119.9
Boston.....	130.4	130.5	118.3	115.1	St. Paul.....	129.8	128.0	118.7	113.6
Bridgeport.....	132.9	132.5	121.3	116.7	South Atlantic:				
Fall River.....	132.7	131.3	120.8	115.4	Atlanta.....	133.1	132.5	120.4	116.1
Manchester.....	134.4	133.4	124.0	116.5	Baltimore.....	137.9	139.1	125.8	120.5
New Haven.....	132.9	132.1	130.6	115.8	Charleston, S. C.	130.8	131.0	123.2	118.8
Portland, Maine.	132.3	131.7	121.7	115.5	Jacksonville.....	140.1	139.7	127.4	121.3
Providence.....	132.3	130.8	122.1	114.9	Norfolk <sup>3</sup> .....	140.9	139.2	126.1	123.6
Middle Atlantic:					Richmond.....	132.8	132.4	120.9	117.4
Buffalo.....	138.1	137.3	125.2	119.6	Savannah.....	141.3	139.8	130.3	123.2
Newark.....	135.3	135.5	120.9	118.2	Washington, D. C.	132.2	133.8	120.7	116.2
New York.....	133.4	133.1	118.0	115.8	East South Central:				
Philadelphia.....	129.6	130.2	119.4	114.5	Birmingham.....	131.7	131.4	120.5	117.0
Pittsburgh.....	133.8	133.4	121.4	116.3	Louisville.....	129.0	128.9	122.6	118.2
Rochester.....	133.8	132.2	122.3	116.8	Memphis.....	139.6	137.2	123.5	116.1
Seranton.....	134.0	133.7	121.0	114.3	Mobile.....	140.4	139.5	126.8	125.3
East North Central:					West South Central:				
Chicago.....	132.1	129.9	121.7	115.1	Dallas.....	129.2	127.2	116.8	114.7
Cincinnati.....	131.1	131.0	122.4	116.4	Houston.....	137.9	134.8	125.9	122.5
Cleveland.....	135.9	134.6	124.1	117.9	Little Rock.....	131.5	130.6	123.2	119.1
Columbus, Ohio.	126.5	126.9	118.6	115.0	New Orleans.....	147.0	144.8	129.0	126.2
Detroit.....	132.3	130.0	122.4	116.5	Mountain:				
Indianapolis.....	131.2	131.3	125.0	119.6	Butte.....	131.8	131.8	121.5	116.4
Milwaukee.....	131.1	129.0	119.8	114.3	Denver.....	133.9	132.6	122.9	115.8
Peoria.....	136.9	136.1	129.0	121.2	Salt Lake City..	138.5	139.0	124.2	118.8
Springfield, Ill.	136.4	136.4	128.0	121.5	Pacific:				
West North Central:					Los Angeles.....	139.5	141.8	128.1	121.4
Kansas City.....	129.4	127.3	118.8	112.7	Portland, Oreg..	147.0	146.4	134.5	127.0
Minneapolis.....	130.7	129.1	120.9	115.4	San Francisco....	141.7	141.3	125.5	120.1
Omaha.....	129.8	128.6	119.9	114.4	Seattle.....	143.9	143.5	129.9	126.0

<sup>1</sup> Aggregate costs of 54 foods in each city, weighted to represent total purchases of families of wage earners and lower-salaried workers, have been combined for the United States with the use of population weights. Primary use is for time-to-time comparisons rather than place-to-place comparisons.

<sup>2</sup> Preliminary.

<sup>3</sup> Includes Portsmouth and Newport News.

<sup>4</sup> Revised.

### Average Annual Indexes of Retail Food Costs, 1913 to February 1943

Annual average indexes of food costs for the years 1913-42, and monthly indexes, January 1942 through February 1943, are presented in table 5.

TABLE 5.—Indexes of Retail Food Costs in 51 Large Cities Combined, 1913 to February, 1943

[1935-39=100]

Year	All-foods index	Year	All-foods index	Year and month	All-foods index	Year and month	All-foods index
1913.....	79.9	1928.....	130.8	1942	116.2	1942	129.6
1914.....	81.8	1929.....	132.5			October.....	
1915.....	80.9	1930.....	126.0			November.....	131.1
1916.....	80.8	1931.....	103.9			December.....	132.7
1917.....	116.9	1932.....	86.5			1943	133.0
1918.....	134.4	1933.....	84.1				
1919.....	149.8	1934.....	93.7				
1920.....	168.8	1935.....	100.4				
1921.....	128.3	1936.....	101.3			January.....	
1922.....	119.9	1937.....	105.3	January.....	124.6	February.....	133.6
1923.....	124.0	1938.....	97.8	February.....	126.1		
1924.....	122.8	1939.....	95.2	March.....	118.6		
1925.....	132.9	1940.....	96.6	April.....	119.6		
1926.....	137.4	1941.....	105.5	May.....	121.6		
1927.....	132.3	1942.....	123.9	June.....	123.2		
				July.....	124.6		
				August.....	126.1		
				September.....	126.6		



## Wholesale Prices

### WHOLESALE PRICES IN FEBRUARY 1943

MARKED increases in primary market <sup>1</sup> prices for certain farm products, particularly fresh fruits and vegetables and for livestock, brought the comprehensive index of wholesale prices up 0.6 percent in February to a new war-time high. At 102.5 percent of the 1926 average, the all-commodity index is 6 percent higher than for February of last year and nearly 37 percent above the pre-war level of August 1939.

Prices for farm products in primary markets averaged 1.7 percent higher in February than in January. Foods and fuel and lighting materials rose 0.6 percent; building materials, 0.4 percent; miscellaneous commodities, 0.2 percent; and chemicals and allied products and housefurnishing goods, 0.1 percent.

Average prices for raw materials advanced 1.3 percent during the month while semimanufactured commodities and manufactured products advanced slightly.

During the past 12 months prices for most agricultural products rose sharply. Fruits and vegetables were 27 percent higher in February than for the corresponding month of last year. Livestock and poultry increased over 21 percent; dairy products, 19 percent; grains, 14 percent; and meats, 11 percent. Except in a few instances, prices for industrial commodities showed little change during the past year. Drugs and pharmaceuticals advanced about 31 percent because of increased taxes on alcohol; woolen and worsted goods rose nearly 8 percent; cattle feed, 7 percent; and coal, 5 percent. Plumbing and heating fixtures, on the other hand, were almost 8 percent lower than for February 1942 and industrial fats and oils dropped 6 percent.

The upward movement in prices for farm products in February was quite general. Livestock and poultry advanced 2.8 percent, led by increases of over 6 percent for ewes and wethers, 4 percent for lambs, 3.5 percent for hogs, 3 percent for cows, and more than 2 percent for calves and steers. All grains averaged higher. Rye advanced 4 percent; corn, oats, and wheat, 1 percent or over; and barley, 0.2 percent. In addition cotton increased 1.6 percent and prices were also higher for seeds, hay, and peanuts. During the month market prices for apples, citrus fruits, onions, and potatoes rose substantially. Lower prices were reported for eggs, tobacco, and wool. In the past 12 months average prices for farm products rose 17.5 percent.

Largely as a result of the sharp increase in prices for fresh fruits and vegetables, 5.8 percent, average prices for foods in primary markets rose 0.6 percent during the month. Quotations were also higher

<sup>1</sup> The Bureau of Labor Statistics wholesale price data for the most part represent prices prevailing in the "first commercial transaction." They are prices quoted in primary markets, at principal distribution points.

for cheese and powdered milk, for most cereal products including flour, and for oleomargarine and oleo oil. Butter declined fractionally and peanut oil dropped nearly 2 percent.

Wholesale prices for textile products and hides and leather products remained steady during February.

Ceiling prices for coal were adjusted upward by the Office of Price Administration to allow for higher production costs, and coke and petroleum products, particularly fuel oil and kerosene, rose slightly.

The increase of 0.4 percent in average prices for building materials was largely the result of action by the Office of Price Administration in raising ceiling prices on yellow pine boards, together with higher quotations for maple flooring, spruce and sugar pine lumber, and for linseed oil. Lower prices were reported for rosin, turpentine, yellow pine finish, and for certain types of gum, oak, and western pine lumber.

In the chemicals and allied products group, fatty acids continued to advance and higher prices were also reported for camphor and for mixed feretilizers in certain areas. Phenol declined 7 percent, because of savings effected in production costs, and ergot dropped 4 percent.

Continued advances in prices for boxboard brought the index for paper and pulp up 1 percent. [Cattle feed declined 0.5 percent because of weakening prices for bran.

Percentage comparison of the February 1943 level of wholesale prices with January 1943, February 1942, and August 1939, with corresponding index numbers, are given in table 1.

TABLE 1.—Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities, February 1943, With Comparisons for January 1943, February 1942, and August 1939

[1926=100]

Group and subgroup	February 1943	January 1943	Percent of change	February 1942	Percent of change	August 1939	Percent of increase
All commodities.....	102.5	101.9	+0.6	96.7	+6.0	75.0	36.7
Farm products.....	119.0	117.0	+1.7	101.3	+17.5	61.0	95.1
Grains.....	108.6	107.3	+1.2	95.3	+14.0	51.5	110.9
Livestock and poultry.....	132.8	129.2	+2.8	109.3	+21.5	66.0	101.2
Other farm products.....	112.6	111.5	+1.0	97.4	+15.6	60.1	87.4
Foods.....	105.8	105.2	+0.6	94.6	+11.8	67.2	57.4
Dairy products.....	113.3	113.4	-0.1	95.0	+19.3	67.9	66.9
Cereal products.....	92.2	90.6	+1.8	91.1	+1.2	71.9	28.2
Fruits and vegetables.....	108.5	102.6	+5.8	85.2	+27.3	58.5	85.5
Meats.....	115.5	115.5	0	104.0	+11.1	73.7	56.7
Other foods.....	94.5	96.2	-1.8	89.4	+5.7	60.3	56.7
Hides and leather products.....	117.8	117.8	0	115.3	+2.2	92.7	27.1
Shoes.....	126.4	126.4	0	121.8	+3.8	100.8	25.4
Hides and skins.....	116.0	116.0	0	115.5	+0.4	77.2	50.3
Leather.....	101.3	101.3	0	101.4	-0.1	84.0	20.6
Other leather products.....	115.2	115.2	0	113.5	+1.5	97.1	18.6
Textile products.....	97.3	97.3	0	95.2	+2.2	67.8	43.5
Clothing.....	107.0	107.0	0	105.3	+1.6	81.5	31.3
Cotton goods.....	112.6	112.5	+0.1	111.4	+1.1	65.5	71.9
Hosiery and underwear.....	70.5	70.5	0	69.6	+0.9	61.5	14.6
Rayon.....	30.3	30.3	0	30.3	0	28.5	6.3
Silk.....	(2)	(2)	(2)	(2)	(2)	44.3	44.3
Woolen and worsted goods.....	112.4	112.4	0	104.3	+7.8	75.5	48.9
Other textile products.....	97.7	97.7	0	98.1	-0.4	63.7	53.4
Fuel and lighting materials.....	79.8	79.3	+0.5	78.0	+1.8	72.6	9.9
Anthracite.....	89.7	88.5	+1.4	85.3	+5.2	72.1	24.4
Bituminous coal.....	113.9	112.5	+1.2	108.4	+5.1	96.0	18.6
Coke.....	122.3	122.1	+0.2	122.1	0	104.2	17.4
Electricity.....	(2)	(2)	(2)	67.6	(2)	75.8	75.8
Gas.....	(2)	73.2	(2)	77.0	(2)	86.7	86.7
Petroleum and products.....	61.2	60.8	+0.4	58.9	+3.9	51.7	18.4
Metals and metal products.....	103.8	103.8	0	103.6	+0.2	93.2	11.4
Agricultural implements.....	96.9	96.9	0	96.9	0	93.5	3.6
Farm machinery.....	98.0	98.0	0	98.0	0	94.7	3.5
Iron and steel.....	97.2	97.2	0	97.0	+0.2	95.1	2.2
Motor vehicles.....	112.8	112.8	0	112.4	+0.4	92.5	21.9
Nonferrous metals.....	86.0	86.0	0	85.6	+0.4	74.6	15.3
Plumbing and heating.....	90.4	90.4	0	97.9	-7.7	79.3	14.0
Building materials.....	110.2	109.8	+0.4	110.1	+0.1	89.6	23.0
Brick and tile.....	98.6	98.7	-0.1	97.0	+1.6	90.5	9.0
Cement.....	94.2	94.2	0	93.4	+0.8	91.3	3.2
Lumber.....	134.6	133.3	+1.3	132.7	+1.4	90.1	49.4
Paint and paint materials.....	101.2	100.6	+0.6	99.9	+1.3	82.1	23.3
Plumbing and heating.....	90.4	90.4	0	97.9	-7.7	79.3	14.0
Structural steel.....	107.3	107.3	0	107.3	0	107.3	0
Other building materials.....	102.2	102.2	0	103.5	-1.3	89.5	14.2
Chemicals and allied products.....	100.3	100.2	+0.1	97.0	+3.4	74.2	35.2
Chemicals.....	96.9	96.9	0	96.3	+0.6	83.8	15.6
Drugs and pharmaceuticals.....	165.5	165.4	+0.1	126.5	+39.0	77.1	114.7
Fertilizer materials.....	79.0	79.0	0	79.3	-0.3	65.5	20.6
Mixed fertilizers.....	85.8	85.3	+0.5	82.7	+3.7	73.1	17.4
Oils and fats.....	101.5	101.5	0	108.2	-6.2	40.6	150.0
Housefurnishing goods.....	102.6	102.5	+0.1	102.5	+0.1	85.6	19.9
Furnishings.....	107.3	107.3	0	107.4	-0.1	90.0	19.2
Furniture.....	97.7	97.4	+0.3	97.4	0	81.1	20.5
Miscellaneous.....	90.9	90.7	+0.2	89.3	+1.8	73.3	24.0
Automobile tires and tubes.....	73.0	73.0	0	71.0	+2.8	60.5	20.7
Cattle feed.....	142.1	142.8	-0.5	132.8	+9.3	68.4	107.7
Paper and pulp.....	101.1	100.1	+1.0	102.9	-1.8	80.0	26.4
Rubber, crude.....	46.3	46.3	0	46.3	0	34.9	32.7
Other miscellaneous.....	94.9	94.9	0	92.9	+2.2	81.3	16.7
Raw materials.....	109.6	108.2	+1.3	97.0	+13.0	66.5	64.8
Semimanufactured articles.....	92.9	92.8	+0.1	92.0	+1.0	74.5	24.7
Manufactured products.....	100.3	100.1	+0.2	97.0	+3.4	79.1	26.8
All commodities other than farm products.....	98.7	98.5	+0.2	95.5	+3.4	77.9	26.7
All commodities other than farm products and foods.....	96.2	96.0	+0.2	94.9	+1.4	80.1	20.1

1 Preliminary.

2 Data not available.



## Index Numbers by Commodity Groups, 1926 to February 1943

Index numbers of wholesale prices by commodity groups for selected years from 1926 to 1942, inclusive, and by months from February 1942 to February 1943, inclusive, are shown in table 2.

TABLE 2.—Index Numbers of Wholesale Prices by Groups of Commodities

[1926=100]

Year and month	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting	Metals and metal products	Building materials	Chemicals and allied products	House-furnishing goods	Miscellaneous	All commodities
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1929.....	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.0	94.3	82.6	95.3
1932.....	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.9	75.1	64.4	64.8
1933.....	51.4	60.5	80.9	64.8	66.3	79.8	77.0	72.1	75.8	62.5	65.9
1937.....	86.4	85.5	104.6	76.3	77.6	95.7	95.2	82.6	89.7	77.8	86.3
1938.....	68.5	73.6	92.8	66.7	76.5	95.7	90.3	77.0	86.8	73.3	78.6
1939.....	65.3	70.4	95.6	69.7	73.1	94.4	90.5	76.0	86.3	74.8	77.1
1940.....	67.7	71.3	100.8	73.8	71.7	95.8	94.8	77.0	88.5	77.3	78.6
1941.....	82.4	82.7	108.3	84.8	76.2	99.4	103.2	84.6	94.3	82.0	87.3
1942.....	105.9	99.6	117.7	96.9	78.5	103.8	110.2	97.1	102.4	89.7	98.8
February.....	101.3	94.6	115.3	95.2	78.0	103.6	110.1	97.0	102.5	89.3	96.7
March.....	102.8	96.1	116.7	96.6	77.7	103.8	110.5	97.1	102.6	89.7	97.6
April.....	104.5	98.7	119.2	97.7	77.7	103.8	110.2	97.1	102.8	90.3	98.7
May.....	104.4	98.9	118.8	98.0	78.0	103.9	110.1	97.3	102.9	90.5	98.8
June.....	104.4	99.3	118.2	97.6	78.4	103.9	110.1	97.2	102.9	90.2	98.6
July.....	105.3	99.2	118.2	97.1	79.0	103.8	110.3	96.7	102.8	89.8	98.7
August.....	106.1	100.8	118.2	97.3	79.0	103.8	110.3	96.2	102.7	88.9	99.2
September.....	107.8	102.4	118.1	97.1	79.0	103.8	110.4	96.2	102.5	88.8	99.6
October.....	109.0	103.4	117.8	97.1	79.9	103.8	110.4	96.2	102.5	88.6	100.0
November.....	110.5	103.5	117.8	97.1	79.1	103.8	110.1	99.5	102.5	90.1	100.3
December.....	113.8	104.3	117.8	97.2	79.2	103.8	110.0	99.5	102.5	90.5	101.0
1943:											
January.....	117.0	105.2	117.8	97.3	79.3	103.8	109.8	100.2	102.5	90.7	101.9
February.....	119.0	105.8	117.8	97.3	79.8	103.8	110.2	100.3	102.6	90.9	102.5

<sup>1</sup> Preliminary.

The price trend for specified years and months since 1926 is shown in table 3 for the following groups of commodities: Raw materials, semimanufactured articles, manufactured products, commodities other than farm products, and commodities other than farm products and foods. The list of commodities included under the classifications "Raw materials," "Semimanufactured articles," and "Manufactured products" was shown on pages 10 to 12 of Wholesale Prices, December and Year 1941 (Serial No. R. 1434).

TABLE 3.—Index Numbers of Wholesale Prices by Special Groups of Commodities  
[1926=100]

Year and month	Raw materials	Semi-manufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods	Year and month	Raw materials	Semi-manufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods
1926.....	100.0	100.0	100.0	100.0	100.0	1942—Con.					
1929.....	97.5	93.9	94.5	93.3	91.6	May.....	99.7	92.9	99.0	97.4	95.7
1932.....	55.1	59.3	70.3	68.3	70.2	June.....	99.8	92.8	98.6	97.1	95.6
1933.....	56.5	65.4	70.5	69.0	71.2	July.....	100.1	92.8	98.6	97.0	95.7
1937.....	84.8	85.3	87.2	86.2	85.3	August.....	101.2	92.7	98.9	97.5	95.6
1938.....	72.0	75.4	82.2	80.6	81.7	September.....	102.2	92.9	99.2	97.7	95.5
1939.....	70.2	77.0	80.4	79.5	81.3	October.....	103.0	92.7	99.4	97.9	95.5
1940.....	71.9	79.1	81.6	80.8	83.0	November.....	103.9	92.6	99.4	97.9	95.8
1941.....	83.5	86.9	89.1	88.3	89.0	December.....	106.1	92.5	99.6	98.1	95.9
1942.....	100.6	92.6	98.6	97.0	95.5	1943:					
February.....	97.0	92.0	97.0	95.5	94.9	January.....	108.2	92.8	100.1	98.5	96.0
March.....	98.2	92.3	97.8	96.2	95.2	February.....	109.6	92.9	100.3	98.7	96.2
April.....	100.0	92.8	98.7	97.2	95.6						

<sup>1</sup> Preliminary.

### Weekly fluctuations

Weekly changes in wholesale prices by groups of commodities during January and February 1943 are shown by the index numbers in table 4. These indexes are not averaged to obtain an index for the month but are computed only to indicate the fluctuations from week to week.

TABLE 4.—Weekly Index Numbers of Wholesale Prices by Commodity Groups, January and February 1943

[1926=100]

Commodity group	Feb. 27	Feb. 20	Feb. 13	Feb. 6	Jan. 30	Jan. 23	Jan. 16	Jan. 9	Jan. 2
All commodities.....	<sup>1</sup> 102.7	<sup>1</sup> 102.4	<sup>1</sup> 102.1	<sup>1</sup> 102.0	<sup>1</sup> 101.8	<sup>1</sup> 101.7	<sup>1</sup> 101.6	<sup>1</sup> 101.4	<sup>1</sup> 101.2
Farm products.....	121.2	120.0	118.6	118.2	117.7	117.2	116.6	116.1	115.4
Foods.....	106.0	105.7	105.5	105.1	105.0	104.7	104.8	104.4	104.2
Hides and leather products.....	118.4	118.4	118.4	118.4	118.4	118.4	118.4	118.4	118.4
Textile products.....	96.8	96.8	96.8	96.8	96.8	96.8	96.7	96.7	96.7
Fuel and lighting materials.....	80.7	80.5	80.4	80.4	80.1	80.1	80.1	80.0	79.9
Metals and metal products.....	<sup>1</sup> 103.9	<sup>1</sup> 103.9	<sup>1</sup> 103.9	<sup>1</sup> 103.9	<sup>1</sup> 103.9	<sup>1</sup> 103.9	<sup>1</sup> 103.9	<sup>1</sup> 103.9	<sup>1</sup> 103.9
Building materials.....	110.0	110.0	110.1	110.1	110.1	110.0	110.0	110.0	110.0
Chemicals and allied products.....	100.3	100.3	100.0	99.5	99.5	99.5	99.5	99.5	99.5
Housefurnishing goods.....	104.1	104.1	104.1	104.1	104.1	104.1	104.1	104.1	104.1
Miscellaneous commodities.....	90.9	90.7	90.6	90.5	90.5	90.5	90.5	90.4	90.4
Raw materials.....	110.6	109.8	108.9	108.6	108.3	108.0	107.6	107.2	106.7
Semi-manufactured articles.....	92.8	92.8	92.7	92.5	92.5	92.5	92.5	92.5	92.5
Manufactured products.....	<sup>1</sup> 100.5	<sup>1</sup> 100.5	<sup>1</sup> 100.5	<sup>1</sup> 100.4	<sup>1</sup> 100.3	<sup>1</sup> 100.3	<sup>1</sup> 100.3	<sup>1</sup> 100.2	<sup>1</sup> 100.1
All commodities other than farm products.....	<sup>1</sup> 98.7	<sup>1</sup> 98.6	<sup>1</sup> 98.6	<sup>1</sup> 98.5	<sup>1</sup> 98.4	<sup>1</sup> 98.4	<sup>1</sup> 98.3	<sup>1</sup> 98.2	<sup>1</sup> 98.2
All commodities other than farm products and foods.....	<sup>1</sup> 96.5	<sup>1</sup> 96.4	<sup>1</sup> 96.4	<sup>1</sup> 96.4	<sup>1</sup> 96.3	<sup>1</sup> 96.3	<sup>1</sup> 96.3	<sup>1</sup> 96.2	<sup>1</sup> 96.2

<sup>1</sup> Preliminary.

# Trend of Employment and Unemployment

## SUMMARY OF REPORTS FOR FEBRUARY 1943

THE total number of employees in nonagricultural establishments in February was 37,995,000, about 3 million more than in February 1942, of which increase 2,205,000 occurred in manufacturing. The gain over the month of 133,000 in the total number of employees is about the same as the average seasonal change from January to February.

### Industrial and Business Employment

In manufacturing industries the principal increases in wage-earner employment during the year occurred in those industries engaged in production for war use. The transportation equipment group, representing aircraft, shipbuilding, railroad equipment, and some ordnance items such as tanks and combat vehicles, employed 2,155,000 wage earners, or about twice as many as in February 1942 and 88,000 more than in January 1943. Iron and steel, electrical machinery, other machinery, automobiles, and chemicals each employed about 200,000

TABLE 1.—Estimated Number of Wage Earners and Indexes of Wage-Earner Employment in Manufacturing Industries, by Major Industry Group<sup>1</sup>

Industry group	Estimated number of wage earners (thousands)				Wage earner indexes (1939=100)	
	February 1943	January 1943	December 1942	February 1942	February 1943	January 1943
All manufacturing.....	13,648	13,514	13,473	11,654	166.6	165.0
Durable goods.....	8,014	7,875	7,780	6,221	222.0	218.1
Nondurable goods.....	5,634	5,639	5,693	5,433	123.0	123.1
Iron and steel and their products.....	1,710	1,693	1,676	1,537	172.5	170.7
Electrical machinery.....	674	661	649	503	260.3	255.1
Machinery, except electrical.....	1,220	1,202	1,190	1,005	231.0	227.5
Transportation equipment, except automobiles.....	2,155	2,067	1,999	1,060	1,358.0	1,302.2
Automobiles.....	648	631	613	435	161.0	156.7
Nonferrous metals and their products.....	415	408	405	367	180.9	178.1
Lumber and timber basic products.....	467	489	515	544	111.2	116.3
Furniture and finished lumber products.....	364	362	365	398	111.0	110.2
Stone, clay, and glass products.....	361	362	368	372	122.9	123.2
Textile-mill products and other fiber manufactures.....	1,289	1,289	1,287	1,296	112.7	112.7
Apparel and other finished textile products.....	894	884	886	944	113.3	112.0
Leather and leather products.....	356	358	364	384	102.6	103.1
Food and kindred products.....	936	965	1,018	909	109.5	112.9
Tobacco manufactures.....	93	96	99	95	100.0	102.4
Paper and allied products.....	313	309	309	327	117.8	116.6
Printing, publishing, and allied industries.....	337	335	342	340	102.7	102.2
Chemicals and allied products.....	722	715	702	523	250.4	248.0
Products of petroleum and coal.....	122	123	124	123	115.3	116.0
Rubber products.....	184	183	180	146	152.3	151.6
Miscellaneous industries.....	388	382	382	346	158.6	155.9

<sup>1</sup> The estimates and indexes presented in this table have been adjusted to final data for 1941 and preliminary data for the second quarter of 1942 made available by the Bureau of Employment Security of the Federal Security Agency and are not comparable with data shown in mimeographed releases for December 1942 and prior months. Estimates and indexes for the period January 1939 to November 1942 comparable with the data in the above table are available upon request.



more wage earners than they did a year earlier. Smaller increases took place in the nonferrous and in the rubber groups. Employment was lower in most of the other major groups, lumber and timber basic products showing the greatest decrease, 77,000.

In durable-goods industries as a whole there were 8,014,000 wage earners compared with 6,221,000 in February 1942. In the non-durable-goods industries, however, the number of wage earners, 5,634,000, was only 200,000 higher than a year before and was unchanged over the month. The gain in chemicals and rubber goods alone was 237,000, so that in the aggregate the remaining nondurable-goods industries declined over the year.

Employment in both wholesale and retail trade showed little change over the month, remaining 6 to 8 percent below that of February 1942. Street railways and busses increased by about 2 percent over January and by about 13 percent over a year ago. Anthracite, bituminous coal, and metalliferous mining employed about 8 percent fewer in February 1943 than in February 1942. Coal mining changed very little since January 1943, but metalliferous mining declined about 1 percent.

### *Public Employment*

Of the aggregate of 2,967,000 employees in the Federal executive service in February 1943, 74 percent were working in war agencies and 26 percent in other agencies. Partially offsetting the increases in February of 87,300 in war agencies was a decline of 5,800 in other agencies, distributed mainly between the Post Office Department and the Tennessee Valley Authority. The decrease in the latter agency was the result of completing several projects.

From February 1942 to February 1943, Federal executive-service employment increased 1,161,700; pay rolls increased from \$283,081,000 a month to \$537,751,000. The January and February 1943 pay rolls include overtime payments.

The WPA and CCC programs continued to reduce personnel in February by 86,000 and 100, respectively. The NYA, on the other hand, added 12,000 persons—2,500 on the student work program and 9,500 on the war production training program. Personnel reductions on the WPA and CCC programs since February 1942 amounted to 1,159,000 and on the NYA program to 303,000.

Federally financed construction showed an employment decline of 113,000 from mid-January to mid-February 1943. The projects mainly responsible were nonresidential building, streets and roads, reclamation, and river, harbor, and flood control. Employment increases were reported for ship construction and repair and RFC production facility projects. Employment on all Federally financed construction increased from 1,318,000 in February 1942 to 2,313,000 in February 1943.

For the regular Federal services, data for the legislative, judicial, and force-account employees are reported to the Bureau of Labor Statistics by the respective offices; for the executive-service employees, data are reported through the Civil Service Commission. The Bureau of Labor Statistics receives monthly reports on employment and pay rolls for the various construction projects financed wholly or partially by Federal funds directly from the contractors and subcontractors,

and for the NYA, WPA, and CCC programs from the respective agencies.

TABLE 2.—*Employment and Pay Rolls in Regular Federal Services and on Projects Financed Wholly or Partially from Federal Funds*

[Subject to revision]

Service or program	Employment			Pay rolls		
	February 1943	January 1943	February 1942	February 1943	January 1943	February 1942
Federal services:						
Executive <sup>1</sup>	2,967,147	2,885,685	1,805,489	\$537,751,000	\$523,720,550	\$283,081,474
War	2,190,049	2,102,744	991,587	384,562,600	369,413,483	160,965,036
Other	777,098	782,941	813,902	153,188,400	154,307,067	122,116,438
Judicial	2,597	2,597	2,601	721,548	708,351	668,539
Legislative	6,154	6,284	6,343	1,315,145	1,432,989	1,375,325
Construction projects:						
Financed from regular Federal appropriations <sup>2</sup>	2,120,659	2,235,766	1,220,193	470,568,199	503,415,741	219,052,432
War	2,048,066	2,158,265	1,122,301	456,978,967	489,458,256	204,598,950
Other	72,593	77,501	97,892	13,589,232	13,957,485	14,453,482
Public housing <sup>3</sup>	72,428	75,023	56,546	9,910,840	11,002,385	8,205,598
War public works	10,900	11,499	3,937	1,472,154	1,553,145	341,338
Financed by RFC <sup>4</sup>	108,565	102,954	36,998	19,000,137	21,319,547	6,582,478
War	107,841	101,992	35,603	18,853,488	21,131,627	6,349,468
Other	724	962	1,395	146,649	187,920	233,010
Other programs:						
National Youth Administration <sup>5</sup>	183,208	171,181	486,133	3,373,211	3,112,052	7,236,841
Student work program	93,618	91,070	257,179	765,773	660,976	1,683,987
Work production training program <sup>6</sup>	89,590	80,111	228,954	2,607,438	2,451,076	5,552,854
Work Projects Administration projects	202,568	288,652	1,028,577	14,288,973	18,590,172	58,729,760
War	64,162	96,836	327,778	4,259,376	5,917,991	18,895,871
Other	138,406	191,816	700,799	10,029,597	12,672,181	39,833,889
Civilian Conservation Corps	417	511	130,321	79,053	84,880	6,390,338

<sup>1</sup> Includes force-account employees and employees in United States navy yards also included under construction projects, and supervisory and technical employees included under NYA, WPA, and CCC. Overtime payments are included in the pay rolls for January and February 1943.

<sup>2</sup> Includes ship construction and repair in private shipyards and United States navy yards.

<sup>3</sup> Includes all Federal housing projects, including those formerly under the United States Housing Authority.

<sup>4</sup> Includes employees and pay roll of the RFC Mortgage Co.

<sup>5</sup> Beginning July 1942 the National Youth Administration was considered a training program for war work, rather than a work-relief program. Value of maintenance is included in the pay-roll data for February 1942 but excluded from those for January and February 1943.

<sup>6</sup> Called the out-of-school work program prior to July 1942.

## DETAILED REPORTS FOR INDUSTRIAL AND BUSINESS EMPLOYMENT, JANUARY 1943

THE usual detailed monthly report on employment, covering January 1943, has had to be omitted from this issue because of unavoidable delays in the tabulations. The detailed mimeographed report on Trend of Employment and Pay Rolls is, however, being issued as usual and is available on request.

## CIVILIAN LABOR FORCE IN FEBRUARY 1943

THE civilian labor force declined by 100,000 persons between January and February 1943 to a new wartime low of 52,300,000, according to the Bureau of the Census Monthly Report on the Labor Force.

During the same period, employment decreased by 100,000 persons and unemployment remained unchanged at 1,400,000.

TABLE 1.—*Estimated Civilian Labor Force, by Employment Status and by Sex, April 1940–February 1943*

[Source: U. S. Department of Commerce, Bureau of the Census]

Month	Estimated number (millions of persons)								
	Labor force			Employed			Unemployed <sup>1</sup>		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
<i>1940</i>									
April.....	53.9	40.6	13.3	45.1	34.1	11.0	8.8	6.5	2.3
May.....	54.7	41.3	13.4	46.3	35.3	11.0	8.4	6.0	2.4
June.....	56.2	42.3	13.9	47.6	36.4	11.2	8.6	5.9	2.7
July.....	56.9	43.1	13.8	47.6	36.8	10.8	9.3	6.3	3.0
August.....	56.6	42.9	13.7	47.7	36.9	10.8	8.9	6.0	2.9
September.....	54.9	41.5	13.4	47.9	36.7	11.2	7.0	4.8	2.2
October.....	54.4	41.3	13.1	47.0	36.2	10.8	7.4	5.1	2.3
November.....	53.7	41.1	12.6	46.3	35.8	10.5	7.4	5.3	2.1
December.....	53.4	40.9	12.5	46.3	35.7	10.6	7.1	5.2	1.9
<i>1941</i>									
January.....	53.0	40.7	12.3	45.3	35.1	10.2	7.7	5.6	2.1
February.....	52.9	40.6	12.3	45.7	35.4	10.3	7.2	5.2	2.0
March.....	52.7	40.4	12.3	45.8	35.4	10.4	6.9	5.0	1.9
April.....	53.5	40.9	12.6	46.8	36.2	10.6	6.7	4.7	2.0
May.....	54.2	40.9	13.3	48.5	37.0	11.5	5.7	3.9	1.8
June.....	56.2	42.3	13.9	50.2	38.3	11.9	6.0	4.0	2.0
July.....	56.6	42.6	14.0	50.9	38.9	12.0	5.7	3.7	2.0
August.....	56.4	42.4	14.0	51.0	38.8	12.2	5.4	3.6	1.8
September.....	54.8	41.0	13.8	50.3	38.0	12.3	4.5	3.0	1.5
October.....	54.1	40.4	13.7	50.2	37.9	12.3	3.9	2.5	1.4
November.....	54.1	40.3	13.8	50.2	37.7	12.5	3.9	2.6	1.3
December.....	54.0	40.2	13.8	50.2	37.6	12.6	3.8	2.6	1.2
<i>1942</i>									
January.....	53.2	40.0	13.2	48.9	37.0	11.9	4.3	3.0	1.3
February.....	53.4	40.0	13.4	49.4	37.2	12.2	4.0	2.8	1.2
March.....	54.5	40.0	14.5	50.9	37.6	13.3	3.6	2.4	1.2
April.....	53.7	39.8	13.9	50.7	37.8	12.9	3.0	2.0	1.0
May.....	54.2	40.0	14.2	51.6	38.4	13.2	2.6	1.6	1.0
June.....	56.1	41.1	15.0	53.3	39.4	13.9	2.8	1.7	1.1
July.....	56.8	41.6	15.2	54.0	39.9	14.1	2.8	1.7	1.1
August.....	56.2	41.1	15.1	54.0	39.7	14.3	2.2	1.4	.8
September.....	54.1	39.2	14.9	52.4	38.2	14.2	1.7	1.0	.7
October.....	54.0	39.0	15.0	52.4	38.1	14.3	1.6	.9	.7
November.....	54.5	38.5	16.0	52.8	37.5	15.3	1.7	1.0	.7
December.....	53.4	37.9	15.5	51.9	37.0	14.9	1.5	.9	.6
<i>1943</i>									
January.....	52.4	37.1	15.3	51.0	36.3	14.7	1.4	.8	.6
February.....	52.3	36.7	15.6	50.9	35.9	15.0	1.4	.8	.6

<sup>1</sup> Includes persons on public emergency projects.

The labor force statistics for January and February 1943 indicate that the readily available labor reserves are nearing depletion. Maintenance of a sufficiently large civilian labor force to meet expanded industrial requirements and to furnish men to the armed forces will be increasingly difficult. During 1941 and 1942, the civilian labor force was maintained at approximately pre-war levels, despite the fact that more than 6,000,000 men entered the armed forces. In February 1943, however, the civilian labor force was 1,100,000 persons below the February 1942 level. The addition of 2,200,000 woman workers between February 1942 and February 1943 was not sufficient to offset a decline of 3,300,000 men.



TABLE 2.—Estimated Civilian Labor Force, Employment and Unemployment, by Age Groups, January and February of 1943, 1942, and 1941<sup>1</sup>

[Source. U. S. Department of Commerce, Bureau of the Census]

Labor-market status and age	1943		1942		1941	
	Febru- ary	Janu- ary	Febru- ary	Janu- ary	Febru- ary	Janu- ary
Estimated number (millions of persons)						
Labor force.....	52.3	52.4	53.4	53.2	52.9	53.0
14 to 24 years.....	10.4	10.5	11.3	11.2	11.6	11.7
25 to 54 years.....	33.0	33.1	34.0	34.1	33.6	33.6
55 years and over.....	8.9	8.8	8.1	7.9	7.7	7.7
Employed.....	50.9	51.0	49.4	48.9	45.7	45.3
14 to 24 years.....	9.9	10.1	10.1	9.9	9.1	8.9
25 to 54 years.....	32.5	32.4	32.0	31.9	30.0	29.8
55 years and over.....	8.5	8.5	7.3	7.1	6.6	6.6
Unemployed.....	1.4	1.4	4.0	4.3	7.2	7.7
14 to 24 years.....	.5	.4	1.2	1.3	2.5	2.8
25 to 54 years.....	.5	.7	2.0	2.2	3.6	3.8
55 years and over.....	.4	.3	0.8	.8	1.1	1.1
Unemployment rate <sup>2</sup> (percent) <sup>3</sup>						
All age groups.....	2.6	2.8	7.5	8.1	13.7	14.5
14 to 24 years.....	4.1	4.2	10.4	11.7	22.0	23.6
25 to 54 years.....	1.8	2.0	6.1	6.5	10.7	11.4
55 years and over.....	3.8	3.8	9.4	9.6	14.2	14.2
Percentage distribution of unemployed <sup>3</sup>						
All age groups.....	100.0	100.0	100.0	100.0	100.0	100.0
14 to 24 years.....	31.0	30.8	29.2	30.6	35.3	35.8
25 to 54 years.....	44.2	45.7	52.0	51.8	49.6	49.9
55 years and over.....	21.8	23.5	18.8	17.6	15.1	14.3

<sup>1</sup> All data exclude persons in institutions. Persons on public emergency work projects are included with the unemployed.<sup>2</sup> Unemployed as a percent of labor force in each age group.<sup>3</sup> Percentages computed from unrounded numbers.UNEMPLOYMENT IN SWEDEN, 1942<sup>1</sup>

THE number of unemployed in Sweden, excluding lumbermen and raftsmen, reported by the labor organizations on November 30, 1942, totaled 43,985, according to the State Labor Market Commission (*Statens Arbetsmarknadskommission*). This figure represented 5.9 percent of the total number of workers belonging to the reporting trade-unions, and was 39.7 percent below the previous year, when the corresponding figures were 72,908 and 9.9 percent.

On October 31, 1942, the total number of unemployed reported by the labor organizations was 35,622. This was 4.7 percent of the total membership of the reporting trade-unions and was 40.7 percent less than on the corresponding date in 1941, when the figures were 60,083 and 8.2 percent, respectively.

During the month ending November 30, 1942, the number of unemployed who applied for relief increased by 294 (4.6 percent) to 6,671. As of November 30, 1941, the number of unemployed applying for relief totaled 14,781.

<sup>1</sup> Data are from report of Therman O. Klath, United States commercial attaché, Stockholm.

**UNEMPLOYMENT IN SWITZERLAND, AUGUST 1942<sup>1</sup>**

THE totally unemployed in Switzerland at the end of August 1942 were reported to number 5,035. This compared with 4,781 totally unemployed at the end of July, and with 6,030 at the end of August of the preceding year. On the basis of number of applications for work, which closely parallel the unemployment figures, this shows a greatly improved position over recent years, applications for work having totaled 12,963 in August 1940, 27,939 in August 1939, and 49,606 in August, 1938.

Employment exchanges found positions for 2,381 workers during August 1942, as against 2,503 in the month preceding and 3,711 during August 1941.

<sup>1</sup> Data are from Schweiz. Konsum-Verein (Basel), October 10, 1942; and International Labor Organization Yearbook of Labor Statistics, 1941 (Montreal), 1942.

# Recent Publications of Labor Interest

APRIL 1943

## Absenteeism

*AWOL—employer-employee relations.* (In *Modern Industry*, New York, January 1943, pp. 34-39.)

Discusses 20 causes of absenteeism and methods of meeting the problem.

*Measuring absenteeism.* By King MacRury. (In *Conference Board Management Record*, National Industrial Conference Board, Inc., New York, February 1943, pp. 63-65.)

Summary of data recently collected by the National Industrial Conference Board, together with some indication of the methods used and the problems encountered.

## Conciliation and Arbitration

*Eighth annual report of National Mediation Board, including report of National Railroad Adjustment Board, for fiscal year ended June 30, 1942.* Washington, 1942. 98 pp., folder. 20 cents, Superintendent of Documents, Washington.

Describes the methods of handling railroad labor relations under the Railway Labor Act and gives statistics and other information on labor disputes settled by the Boards.

*Mediation and arbitration of labor disputes by State agency in Indiana.* By Harold Bruss Baker. Indianapolis, Butler University, Press of Department of Journalism, 1942. 58 pp. 25 cents.

## Cost and Standards of Living

*Indexes of cost of controlled and uncontrolled goods and services.* Washington, U. S. Bureau of Labor Statistics, 1943. 5 pp. (Serial No. R. 1509, reprint from January 1943 *Monthly Labor Review*.) Free.

*Income and spending and saving of city families in wartime.* Washington, U. S. Bureau of Labor Statistics, 1942. 31 pp., charts. (Bull. No. 724, reprinted from September 1942 *Monthly Labor Review*, with additional data.) 10 cents, Superintendent of Documents, Washington.

*Spending and saving of the Nation's families in wartime.* Washington, U. S. Bureau of Labor Statistics, 1942. 22 pp., charts. (Bull. No. 723, reprinted from October 1942 *Monthly Labor Review*, with additional data.) 5 cents, Superintendent of Documents, Washington.

*Wartime changes in consumer goods in American markets.* By Laura Brown Webb. Washington, U. S. Bureau of Labor Statistics, 1942. 12 pp. (Serial No. R. 1488, reprinted from November 1942 *Monthly Labor Review*.) Free.

*Current living costs as related to standards of public assistance in Pennsylvania.* Harrisburg, Pennsylvania Department of Public Assistance, 1942. 43 pp.; mimeographed.

EDITOR'S NOTE.—Correspondence regarding the publications to which reference is made in this list should be addressed to the respective publishing agencies mentioned. Where data on prices were readily available, they have been shown with the title entries. The amounts do not include postage, and also they are subject to change.



*Minimum adequate budget guide.* Washington, Council of Social Agencies, Family Welfare Division, 1942. 63 pp. 40 cents.

Prepared as a guide to social workers in estimating living costs of families in the District of Columbia, revising the budget issued in 1934. The publication gives a summary of figures used in calculating the budget, instructions for adapting the budget to individual cases, and standards for specified items.

*The standard of living in 1860: American consumption levels on the eve of the Civil War.* By Edgar W. Martin. Chicago, University of Chicago Press, 1942. 451 pp. \$4.50.

Detailed study of consumption with much information about diet, types of clothing, housing facilities, recreation, and other determining elements entering into standards and levels of living. Contemporary sources in great variety were used. The year 1860 was chosen because it marked the close of the "middle period" in American history, when the national economy was characterized by farming and by production in the home and in small mills and workshops. Some attention is given to differences in the three main areas: the North, the South, and the Frontier. The author makes some comparisons with present conditions but recognizes the limitations of statistics for measuring changes in real income and for comparing standards which had such large differences in material basis in the two periods.

### Economic and Social Problems

*Development of collective enterprise: Dynamics of an emergent economy.* By Seba Eldridge and associates. Lawrence, Kans., University of Kansas Press, 1943. 577 pp. \$4.50.

Results of a 5-year investigation by 30 collaborators. Studies were made of 10 fields described as already collectivized, such as postal services and water and sewerage works, and of ten fields described as undergoing collectivization, such as electric power and housing. Special problems to which chapters are devoted include consumers' and producers' cooperatives and organized labor as a socializing agency. It is held that the development of collective enterprise in a democratic country such as the United States comes about mainly from pressures of consumer interests and general public interests. The book is mainly a description of the origins and growth of collective enterprise in the separate fields covered, but some of the chapters are devoted to analysis of theories and problems overlapping the separate fields of enterprise.

*Economic fluctuations in the United States and the United Kingdom, 1918-1922.* Geneva, League of Nations, 1942. 93 pp., charts. (Series II, Economic and financial, A7.) \$1.50.

A report designed to throw light on problems now arising and those expected to emerge from the present war. Appendix I contains index numbers of employment, production, and prices in the United States; Appendix II gives somewhat similar information for Great Britain.

*Labor policy and the business cycle.* By Sidney C. Sufrin. Washington, American Council on Public Affairs, 1943. 52 pp. \$1.

Summary of outstanding theories in the field of labor policy, particularly in relation to wages. Older or so-called orthodox views are described as essentially "hands off" or *laissez faire* in nature. More recent views discussed include the earlier purchasing-power doctrines, J. M. Keynes' modifications of these doctrines, and proposals for wage subsidies.

*Problems of shift rotation—social and physiological aspects.* By Beatrice Mintz, M. D. (In *Industrial Bulletin*, New York Department of Labor, Albany, December 1942, pp. 423-427. 10 cents. Also reproduced in mimeographed form.)

*Wages and the movement of factory labor.* By W. Rupert Maclaurin and Charles A. Myers. (In *Quarterly Journal of Economics*, Cambridge, Mass., February 1943, pp. 241-264, charts. \$1.25.)

Study of the labor market in two adjacent medium-sized Massachusetts cities from 1937 to 1939, with a reexamination of the same market in 1942, mainly for discovering the amount of movement of workers between firms and the effect of the movement or lack of movement of workers on the equalization of wage rates for jobs of similar nature. The authors conclude that the movement of workers is not so closely related to differences in wages as has commonly been supposed, and they discuss various barriers to movement.

## Employment and Unemployment

*California employment and payrolls in 1940: A study of workers covered by California Unemployment Insurance Act, classified by industry and by county.* Sacramento, Department of Employment, 1942. 68 pp., map, charts; processed.

*Report of fourteenth annual employment census, city of Cincinnati, May 1942.* Cincinnati, Department of Public Welfare and Board of Education, 1942. 5 pp. and charts; mimeographed.

Shows the trend of employment from May 1929 to May 1942. The percentage of "employables" employed full time in May 1942 was 90.17, part-time 4.29, and unemployed 5.54.

*Governmental employment, January 1939 to July 1942.* Washington, U. S. Bureau of Labor Statistics, 1942. 6 pp. (Serial No. R 1493, reprint from November 1942 Monthly Labor Review.) Free.

*Third annual report, Federal Works Agency, fiscal year ended June 30, 1942.* Washington, [1943?]. 156 pp., illus. 25 cents, Superintendent of Documents, Washington.

Emphasizes the war work of the constituent administrations of the Agency, including housing activities, and shows numbers of persons employed on the various Federal Works Agency projects in the fiscal year ending in June 1942 and in earlier years.

## Housing

*Building materials and structures: A glossary of housing terms.* Compiled by subcommittee on definitions of Central Housing Committee on Research, Design, and Construction. Washington, U. S. National Bureau of Standards, 1942. 32 pp. 15 cents, Superintendent of Documents, Washington.

*Evaluating rural housing: The development of the Florida housing inventory and the index of housing adequacy.* By Charles I. Mosier. Gainesville, University of Florida, 1942. 88 pp., illus.

*Practices and experiences of the Lavanburg Homes.* New York, Fred L. Lavanburg Foundation, 1941. 16 pp., plans, illus.

Covers the 13-year history of a pioneer housing project.

*New Zealand's experience with land-value taxation and how that Nation is planning for improved public and private housing in the post-war years.* By Honorable Walter Nash, Minister of New Zealand to the United States. New York, Citizens' Housing Council of New York, 1943. 22 pp. 20 cents.

Address delivered in New York City, January 23, 1943, before a joint meeting of the American Institute of Planners and the Citizens' Housing Council of New York.

*Sixty years of planning—the Bournville experiment.* Bournville, England, [Bournville Village Trust, 1942]. 48 pp., illus. 1s.

Discusses the pioneer housing development for employees of George Cadbury, one of Britain's large chocolate manufacturers.

## Industrial Accidents and Accident Prevention

*Causes and prevention of injuries in manufacture of lumber products, 1941.* By Frank S. McElroy and George R. McCormack. Washington, U. S. Bureau of Labor Statistics, 1943. 18 pp. (Serial No. R. 1491, reprint from November 1942 Monthly Labor Review.) Free.

*Industrial-injury experience in iron and steel industry, 1941.* Washington, U. S. Bureau of Labor Statistics, 1943. 9 pp. (Serial No. R. 1503, reprinted from December 1942 Monthly Labor Review.) Free.

*Twentieth annual report of Safety in Mines Research Board [Great Britain], 1941.* London, 1943. 28 pp., diagrams, illus. 1s.

## Industrial Relations

*A case in practical democracy: Settlement of the anthracite coal strike of 1902.* By Sister Mary Annunciata Merrick. Notre Dame, [University of Notre Dame], 1942. 86 pp. \$1.

This dissertation consists of a biography of Theodore Roosevelt; a description of economic conditions in the anthracite region of Pennsylvania and of the attitude of operators and miners toward arbitration and governmental intervention; and an account of the settlement of the strike of 1902, with an evaluation of Mr. Roosevelt's actions in that crisis.

*Fifth annual report of Pennsylvania Labor Relations Board, for calendar year ended December 31, 1941.* Harrisburg, [1942]. 79 pp.

*Fourth annual report of Wisconsin Employment Relations Board, for fiscal year ended June 30, 1942.* Madison, [1943]. 37 pp.

*Incentives at work.* (In *Modern Industry*, New York, February 15, 1943, pp. 42-45, charts, illus.)

Deals with the bearing of wage-incentive plans on employer-employee relations. It is stated that unions are in some instances demanding that wage-incentive plans be installed. It is also stated that management profits when workers are paid 100 percent for increased production, because of the reduction of unit overhead costs.

*Labor relations and the war.* Edited by Herman Feldman. Philadelphia, American Academy of Political and Social Science, November 1942. 244 pp. (The *Annals*, Vol. 224.) \$2 (paper) and \$2.50 (cloth), to nonmembers of Academy.

The contributions to this issue of the *Annals* are presented under the following heads: Recent developments in labor organization; Issues of wartime labor standards; Labor's cooperation in the national effort; Industrial peace and national labor policy; Planning against post-war labor tension. A selected bibliography is appended.

*Labor relations in the pulp and paper industry of the Pacific Northwest.* By Roger Randall. Portland, Oreg., Northwest Regional Council, 1942. 107 pp. \$2.

Following a factual description of the nature of the industry, the policies of the International Brotherhood of Paper Workers and the International Brotherhood of Pulp, Sulphite, and Paper Mill Workers are discussed, together with the development of collective bargaining, which has resulted in the acceptance of a uniform labor agreement in the Pacific Northwest.

The preface states that the Pacific Northwest paper and pulp industry has not experienced a single strike or lock-out since the workers were organized into unions and collective bargaining was instituted.

*Union-management cooperation, with special reference to the war production drive—a selected annotated bibliography.* Princeton, N. J., Princeton University, Industrial Relations Section, 1942. 27 pp.; mimeographed.

## Labor Legislation

*Cases on labor law.* By James M. Landis and Marcus Manoff. Chicago, Foundation Press, Inc., 1942. xxxii, 1103 pp. 2d. ed. \$7.50.

This volume is a revision of an earlier edition by James M. Landis. It contains a historical introduction and shows how law affecting labor has developed. The cases selected by the authors deal with such subjects as picketing and related activities, strikes and boycotts, the obligations of the employer, and collective agreements.

*Labor laws governing employment of women and minors.* Providence, Rhode Island Department of Labor, 1942. 46 pp.

Includes the text of the laws and minimum-wage orders governing the employment of women and minors in Rhode Island.

*The Labor Relations Act in the courts: A five-year survey and analysis of legal decisions affecting the rights and responsibilities of employers and employees.* By Herbert O. Eby. New York and London, Harper & Bros., 1943. 250 pp. \$3.50.



*Labor mobilization legislation in Great Britain, U. S. S. R., and Germany.* Summary review by Dennis A. Cooper. (In *George Washington Law Review*, Washington, February 1943, pp. 213-225. \$1.)

*Workmen's protective legislation in Poland—20 years cooperation with the International Labor Organization.* London, Congress of Polish Trade Unions, [1941]. 48 pp.

### *Labor Organizations and Their Activities*

*The closed union and the right to work.* By Ralph A. Newman. (In *Columbia Law Review*, New York, January 1943, pp. 42-57. 85 cents.)

A study of the present legal status of union membership restrictions, with suggestions for future action.

*Operation of labor unions in Kansas.* [Topeka], Kansas Legislative Council, 1943. 87 pp. (Publication No. 118.)

Report of an investigation by a special committee of the Kansas State Legislature into certain features of labor organizations, principally initiation fees, dues, assessments, and work permits. Data on these items are presented together with an analysis of their influence upon working conditions in the State.

*Union security and wage policies of National War Labor Board.* By Alexander H. Pekelis. (In *Columbia Law Review*, New York, November 1942, pp. 1320-1332. 85 cents.)

*Report of proceedings at 74th annual Trades Union Congress, held at Blackpool, [England], September 7-11, 1942.* London, Trades Union Congress, [1942?]. 386 pp.

### *Minimum Wage*

*State minimum-wage laws and orders, 1942—an analysis.* By Florence P. Smith. Washington, U. S. Women's Bureau, 1942. 52 pp., pasters. (Bull. No. 191.) 20 cents, Superintendent of Documents, Washington.

Revision of an earlier bulletin (No. 167), bringing the information up to May 1942.

### *Personnel Management*

*Fourth Texas personnel conference, October 29-31, 1942, University of Texas, Austin.* Austin, University of Texas, [1943?]. 102 pp.

Personnel training for war industries and wartime labor problems were discussed by business men, Federal Government officials, and college faculty members.

*Municipal personnel administration.* Chicago, Ill., International City Managers' Association, 1942. 429 pp. 3d ed. \$7.50.

Designed as a practical guide for municipal officials in developing a workable personnel program. Subjects covered include recruitment and selection of personnel, salary and wage standardization, employee training, employee evaluation and service ratings, conditions of employment, employee relations, and retirement systems.

*Pre-war personnel practices in Illinois.* By H. Fabian Underhill. (In *Journal of Business of University of Chicago*, January 1943, pp. 14-27. \$1.25.)

The report shows the various personnel practices in the firms studied, classified by the number of employees, by industry, and by size of community.

*Readings in public personnel administration.* A reprinting of selected articles from *Public Personnel Review*, quarterly journal of Civil Service Assembly of the United States and Canada. Chicago, Ill., Civil Service Assembly of the United States and Canada, 1942. 156 pp. \$1.25.

*Wartime supervision of workers: The human factors in production, for executives and foremen.* By Richard S. Schultz. New York, Harper & Bros., 1943. 206 pp., bibliography. \$2.25.

Outlines methods of wartime supervision to secure victory production.

### Post-War Planning

*Collapse or boom at the end of the war?* By Harold G. Moulton and Karl Schlotterbeck. Washington, Brookings Institution, 1942. 40 pp., charts. (Pamphlet No. 47.) 25 cents.

The authors conclude from their analysis of conditions in the United States during and following the first World War, and of present conditions, that, so far as the factors operating chiefly in the private economy are concerned, the situation to be expected after the present war appears to be somewhat less favorable than that of 1919. It is pointed out, however, that after the first World War the part played by government was a minor one, and that in contrast the active participation of government in the transition period following the present war may give to the transition a more favorable turn.

*Peace aims and post-war planning—a bibliography, selected and annotated.* By Fawn M. Brodie. Boston, World Peace Foundation, 1942. 53 pp. - 25 cents.

*Planning the post-war world—an annotated bibliography.* Minneapolis, Minnesota Work Projects Administration, June 1942. 10 pp.; mimeographed.

*Post-war planning activities of the Federal Government.* Washington, U. S. Office of War Information, November 1942. Various paging; processed.

### Rationing

*Clothes rationing in Britain.* New York, British Information Services, 1942. 10 pp. (I. D. 352.)

The clothes-rationing system as it applies to the consumer, the manufacturer, and the trader in Great Britain is described, and the number of coupons required for the main articles of clothing for adults and children are shown.

*Rationing of food in Great Britain.* New York, British Information Services, 1942. 14 pp. (I. D. 333.)

Describes the British food-rationing system and shows the changes that have taken place in the amounts allowed per person from January 1940 to July 1942, and the allowances for catering and other feeding services as of September 20, 1942.

### Sickness Insurance and Medical Care

*Compulsory health insurance.* (In U. C. C. Quarterly, Unemployment Compensation Commission of North Carolina, Raleigh, fall-winter 1942, pp. 38-43. Free.)

Reviews the growth of voluntary health-insurance plans in the United States, the movement for compulsory health insurance, and recent legislative developments relating to health insurance, including the Rhode Island sickness-insurance law and proposals to extend the provisions of the Federal Social Security Act to cover the risks of sickness and disability.

*Californians pay a lump sum for rent and medical care.* By Elsa Gidlow. (In Medical Economics, Rutherford, N. J., December 1942, pp. 35, 120, 122. 25 cents.)

Describes a medical-service plan endorsed by the California State Medical Association by which medical service is provided in the war-production community of Marin City. The weekly or monthly medical charges are included in the rents but participation in the plan is on a voluntary basis. Complete medical service is provided by the medical center.

*Estudio estadístico de la aplicación de la ley 6174 en diversas instituciones de previsión [Chile].* By Hermes Ahumada P. (In Previsión Social, Ministerio de Salubridad, Previsión y Asistencia Social, Santiago, July-September 1942, pp. 11-25.)

Statistical study of the effect of the Chilean preventive-medicine legislation upon indexes of mortality among persons insured in the social-welfare institutions.

*Operaciones de la Caja de Seguro Obligatorio de Enfermedad e Invalidez en los años 1939-1940 y 1941 [Chile].* (In Previsión Social, Ministerio de Salubridad, Previsión y Asistencia Social, Santiago, July-September 1942, pp. 37-49.)

Statistics of operation of the Chilean Compulsory Sickness and Invalidity Insurance Fund from 1939 to June 30, 1941, including amounts expended for maternity aid, medical aid, invalidity and old-age pensions, and rest with pay provided for by the preventive-medicine legislation.

*Draft interim report of Medical Planning Commission [Great Britain].* London, British Medical Association, 1942. 45 pp.

The Commission, which represented various medical bodies in England and Scotland, reviews in this report the present medical services in Great Britain and suggests methods of reform for the medical and health services of the country.

*Medical relief in Europe.* By Melville D. Mackenzie, M. D. London, Royal Institute of International Affairs, 1942. 67 pp. 2s.

Reviews the medical problems following the last war and discusses the present break-down of health services throughout Europe and measures which will be required when this war ends.

### Social Security

*A new structure of social security: The work of the Inter-American Conference on Social Security at Santiago de Chile.* (In *International Labor Review*, Montreal, December 1942, pp. 661-691. 60 cents.)

*Social security yearbook for calendar year 1941.* Washington, U. S. Social Security Board, 1942. 288 pp., charts. 70 cents, Superintendent of Documents, Washington.

Deals with all types of insurance and assistance provided under the Federal Social Security Act.

*Pensions and compensation to veterans and their dependents.* By Franklin M. Aaronson. (In *Social Security Bulletin*, U. S. Social Security Board, Washington, November 1942, pp. 10-24, charts. 20 cents, Superintendent of Documents, Washington.)

Reviews the development of Federal legislation providing pension and compensation payments to veterans of the armed forces of the United States and to survivors of deceased veterans, summarizes provisions of existing laws, and gives statistics of operation.

*Some current problems in Canadian public welfare: The Dominion Government and the social services.* [Toronto, Canadian Association of Social Workers], Canada Committee, [1942?]. 20 pp.

*Social security in Chile.* (In *Foreign Commerce Weekly*, U. S. Bureau of Foreign and Domestic Commerce, Washington, February 6, 1943, pp. 6, 7, 9, illus. 10 cents, Superintendent of Documents, Washington.)

Account of the Chilean social-insurance scheme from its creation in 1925, with some statistics of its operation in connection with public-health work, housing, and milk distribution. There are also brief notes on social-security measures in Uruguay, Peru, Ecuador, and Costa Rica.

*Estudio jurídico-social sobre la situación del niño en Colombia.* By Ernesto Herrnstadt. (In *Revista de Higiene, Servicios de Higiene del Ministerio de Trabajo, Higiene y Previsión Social*, Bogotá, June-July 1942, pp. 58-77.)

Includes statistical and other information on maternity protection for working women, and on child labor in Colombia.

*Informe que presenta el Gerente de la Caja del Seguro al Consejo de Administración acerca de las labores desarrolladas en el año 1941 [Ecuador].* Quito, Caja del Seguro de Empleados Privados y Obreros, [1942]. 46 pp.

Report on operation of the Ecuadoran Insurance Fund of Salaried and Wage-Earning Employees of Private Concerns in 1941, with some comparative statistics for the years 1937 to 1940.

### Unemployment Insurance and Relief

*Manual of State employment security legislation.* Washington, U. S. Social Security Board, Bureau of Employment Security, 1942. Various paging; processed. (Employment security memorandum No. 13, revised November 1942.)

*Proceedings of inter-regional conference of employment security agencies, regions II and III, Albany, November 17-19, 1941.* Prepared for reproduction by Division of Placement and Unemployment Insurance of New York State Department of Labor. [Albany, 1942?] 287 pp.; mimeographed.

Some of the subjects considered were: Streamlining unemployment-compensation organization and operations, defense problems in the unemployment-compensation field, overcoming labor shortages and effects of material shortages, and current problems in internal management.



*Unemployment compensation and the post-war period, with special reference to the South.* By E. J. Eberling. Nashville, Tenn., Vanderbilt University Press, 1942. 50 pp. (Papers of Institute of Research and Training in the Social Sciences, Vanderbilt University, No. 4.) 50 cents.

*First report of Unemployment Insurance Commission [Canada], for fiscal year ending March 31, 1942.* Ottawa, 1942. 28 pp. 10 cents (Canadian currency).

The report covers the employment service of the Commission, showing number of placements in the different Provinces and in specified industries, and receipts and expenditures of the unemployment insurance fund.

### *Wages and Hours of Labor*

*Earnings in aircraft-engine plants, May 1942.* Washington, U. S. Bureau of Labor Statistics, 1943. 6 pp. (Serial No. R. 1505, reprint from December 1942 Monthly Labor Review.) Free.

*Earnings in eastern and midwestern airframe plants, 1942.* By Louis M. Solomon and N. Arnold Tolles. Washington, U. S. Bureau of Labor Statistics, 1943. 25 pp. (Bull. No. 728.) 10 cents, Superintendent of Documents, Washington.

*State wage and hour restrictions affecting retail establishments, as of September 14, 1942.* New York, Institute of Distribution, Inc., [1942]. 41 pp.; mimeographed.

*Wartime wages and manpower in farming.* By Witt Bowden. Washington, U. S. Bureau of Labor Statistics, 1943. 14 pp., charts. (Serial No. R. 1499, reprint from December 1942 Monthly Labor Review.) Free.

### *Wartime Conditions and Policies*

*Electric power in wartime, 1917-18.* By Calman Winegarden. Washington, U. S. Bureau of Labor Statistics, 1942. 17 pp.; mimeographed. (Historical study No. 54.) Free.

*Federal-State Conference on War Restrictions, Department of Commerce, Washington, D. C., May 5-7, 1942.* Washington, U. S. Department of Commerce, [1942?]. 172 pp., charts; processed.

Among the addresses were the following: State labor laws in wartime, by Frances Perkins; Total manpower, by Paul V. McNutt; The manpower problem and State legislation, by Frank J. McSherry; The national housing program, by John B. Blandford, Jr.; Administering price control, by Leon Henderson.

*Labor in wartime (April 1941-March 1942): Selected and annotated bibliography on labor problems and policies in a wartime economy.* Washington, Library of Congress, Legislative Reference Service, 1942. 92 pp.; mimeographed. (Bibliographies of the world at war, No. V.)

One of a series of 10 bibliographies. Subjects of the other numbers in the series are: I, Political backgrounds of the war; II, Agriculture in a war economy; III, Natural resources and raw materials; IV, Industry in wartime; VI, Economics of war; VII, Civilian defense; VIII, Social and cultural problems in wartime; IX, Military aspects of the war; X, Postwar planning and reconstruction. Supplements at quarterly intervals are planned.

*War public works—a selected bibliography.* Compiled by Frances Mahoney. Washington, Federal Works Agency, Library, February 1943. 56 pp.; mimeographed.

*The British war economy, 1939-1943.* By Mary E. Murphy. New York, Professional & Technical Press, 1943. 403 pp. \$2.50.

Traces the successive war measures introduced in changing over from a free to a controlled economy, with special reference to labor, production, income, and related factors.

## Women in Industry

*Employment of women in manufacture of cannon and small arms in 1942.* By Margaret Kay Anderson. Washington, U. S. Women's Bureau, 1943. 36 pp., illus. (Bull. No. 192-3.) 10 cents, Superintendent of Documents, Washington.

Describes operations in which women are employed, and gives data as to pay, hours of work, personnel practices, and training.

*Employment, hours, wages, and earnings of women and minor employees in the laundry, dry cleaning, and dyeing industry of the State of California, October-November 1942.* San Francisco, California Department of Industrial Relations, Division of Industrial Welfare, 1943. 62 pp.; mimeographed.

Presents statistical data on number of women in the industry in California in 1939, and on occupations, hours worked per week, and hourly wage rates for October-November 1942 and annual earnings for 1939, based on a survey covering 6,557 women and minors in 243 establishments.

*War work of the Women's Bureau, U. S. Department of Labor.* Washington, U. S. Bureau of Labor Statistics, 1943. 15 pp. (Serial No. R. 1502, reprint from December 1942 Monthly Labor Review.) Free.

*Why we like women in our shop.* By W. G. Guthrie. (In *Factory Management and Maintenance*, New York, February 1943, p. 90 et seq., illus. 35 cents.)

Gives answers to common objections to employment of women on men's jobs. Ten months' experience with woman workers convinced the management of a war plant that women "can take over men's jobs and turn out work that meets the unusually exacting requirements of aircraft engine manufacture."

*O trabalho da mulher fora do lar [Brazil].* By Maria Kiehl. (In *Boletim do Ministerio do Trabalho, Indústria e Comércio*, Rio de Janeiro, August 1942, pp. 83-95; September 1942, pp. 97-128; bibliography.)

Report on Brazilian women working outside the home, especially in São Paulo, including information on regulatory legislation, wages, and suggested measures to remedy existing difficulties.

*Transfer of Scottish girls. Report to Scottish Trades Union Congress \* \* \* by the Scottish trade union delegation to the Midlands.* Glasgow, Civic Press, Ltd., [1942?]. 23 pp.

Recommends greater attention to the welfare of the girls transferred from Scotland to work in industrial plants in England, and better wages.

## Youth Problems

*Guides to successful employment of nonfarm youth in wartime agriculture.* Washington, U. S. Children's Bureau, 1943. 14 pp. (Publication No. 290.) Free.

These guides were prepared for use in the Victory Farm Volunteer Program for 1943, and are offered as essential to success in the employment of young persons. They cover selection of workers, preparation for work, working and living conditions, recreation, and community planning.

*The health status of NYA youth: A Nation-wide survey of youth on the out-of-school work programs of the National Youth Administration.* Washington, Federal Security Agency, 1942. 77 pp., map, charts. 25 cents, Superintendent of Documents, Washington.

*Will we help youth preserve democracy? An analysis of the social problems and institutions that influence the problems and role of youth in a village democracy.* By R. W. Roskelley, Paul M. Berry, and Graydon E. Klipple. Fort Collins, Colorado State College, Agricultural Experiment Station, 1942. 47 pp., charts. (Bull. No. 473.)

This report is part of a Nation-wide study sponsored jointly by the American Youth Commission, Columbia University Council for Research in Social Science, and the U. S. Work Projects Administration. The study here reported on covered youth in two widely separated towns in Colorado, their migration, employment, economic status, and leisure-time activities, and suggests projects "to help youth prepare to preserve democracy." The report of the countrywide survey was published as research monograph XXI (1940) of the Work Projects Administration.

*Youth goes to war.* By Lyle M. Spencer and Robert K. Burns. Chicago, Science Research Associates, 1943. 223 pp., bibliography, illus. \$1.28.

Lists and describes briefly 383 war-service jobs, including both military and civilian jobs, which young people can fit themselves for and in which there are definite labor shortages today.

### General Reports

*First biennial report of Department of Labor, Territory of Alaska, 1941-1942.* Juneau, [1943]. 23 pp.

Reviews the work of the Department, analyzes existing labor statutes, and makes recommendations for alteration or improvement of the laws.

*Annual report of Governor of Hawaii, fiscal year ended June 30, 1942.* Washington, U. S. Department of the Interior, [1943?]. 28 pp. 10 cents, Superintendent of Documents, Washington.

Covers social services, unemployment compensation, and the work of the Department of Labor and Industrial Relations in Hawaii.

*Problems of Puerto Rico.* By Kendrick Lee. Washington, Editorial Research Reports, 1013 Thirteenth Street NW., 1942. 15 pp. (Vol. 2, 1942, No. 15.) \$1.

Deals with the economic impact of war on the island, basic political and economic problems, and wartime emergencies.

*Estadística industrial de la República Argentina correspondiente al año 1940.* Buenos Aires, Ministerio de Hacienda, Dirección General de Estadística, 1942. 138 pp., charts. (Report No. 88, Series 1, No. 5, Industry.)

Includes figures on employment and total remuneration of salaried and wage-earning employees in manufacturing industries, in production of petroleum, and in mines and quarries in Argentina in 1940, by geographical division and by industry, with certain comparable figures for 1935 and 1937-39.

*Report of Department of Labor [of Canada] for fiscal year ending March 31, 1942.* Ottawa, 1943. 46 pp. 25 cents (Canadian currency).

Outlines the duties of the Department and gives statistics for different fields of operation, such as conciliation in industrial disputes.

*Production, [Australia], 1940-41: Part I, Secondary industries.* Canberra, Bureau of Census and Statistics, [1942?]. 109 pp. (Bull. No. 35.) 5s.

Shows employment, salaries, and wages.

*Labor in New Zealand, 1942.* By A. E. C. Hare. Wellington, Victoria University College, [1942]. 42 pp. 2s.

Reviews developments in the year ended June 30, 1942, and divides the period into the 6 months before and after Japan entered the war. The chief change in relation to the distribution of industrial manpower, the author states, was brought about by the establishment of district manpower offices.

*Native labor in South Africa.* By Sheila T. Van Der Horst. London, Oxford University Press, 1942. 340 pp., bibliography. 18s.

In South Africa race relations have been in the forefront of political life since the first European settlement in 1652, and have been an important determinant of economic development. In this book the writer traces the growth of the use of native labor and analyzes the economic significance of governmental and other measures affecting it. The book is divided into three parts: I, Economic contact between Europeans and natives before 1870; II, The impact of the diamond and gold discoveries upon the market for native labor, 1870-1899; III, The problem of the twentieth-century competition between European and native.



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